



**WARDS** *Powr-Kraft*

# WOODWORKING TOOLS

## Wards BIG VALUE Lathe

Just look at the *size* and *quality* of this Ward Lathe . . . our lowest priced one! It weighs over 20 lbs., net! It has thrust Ball Bearing in head! . . . oversize capacity of 8-in. swing and 27-in. between centers! . . . heavy, ribbed bed with accurately ground ways! Read *all* about it on Page 11. It's bigger, stronger, more accurate than any you ever saw at such a price!

That's Wards lowest priced tool . . . our Heavy Duty and Extra Heavy Duty Tools are even more startling in the range of capacities, precision and strength they offer! For biggest value, be sure to buy Wards Powr-Kraft tools!

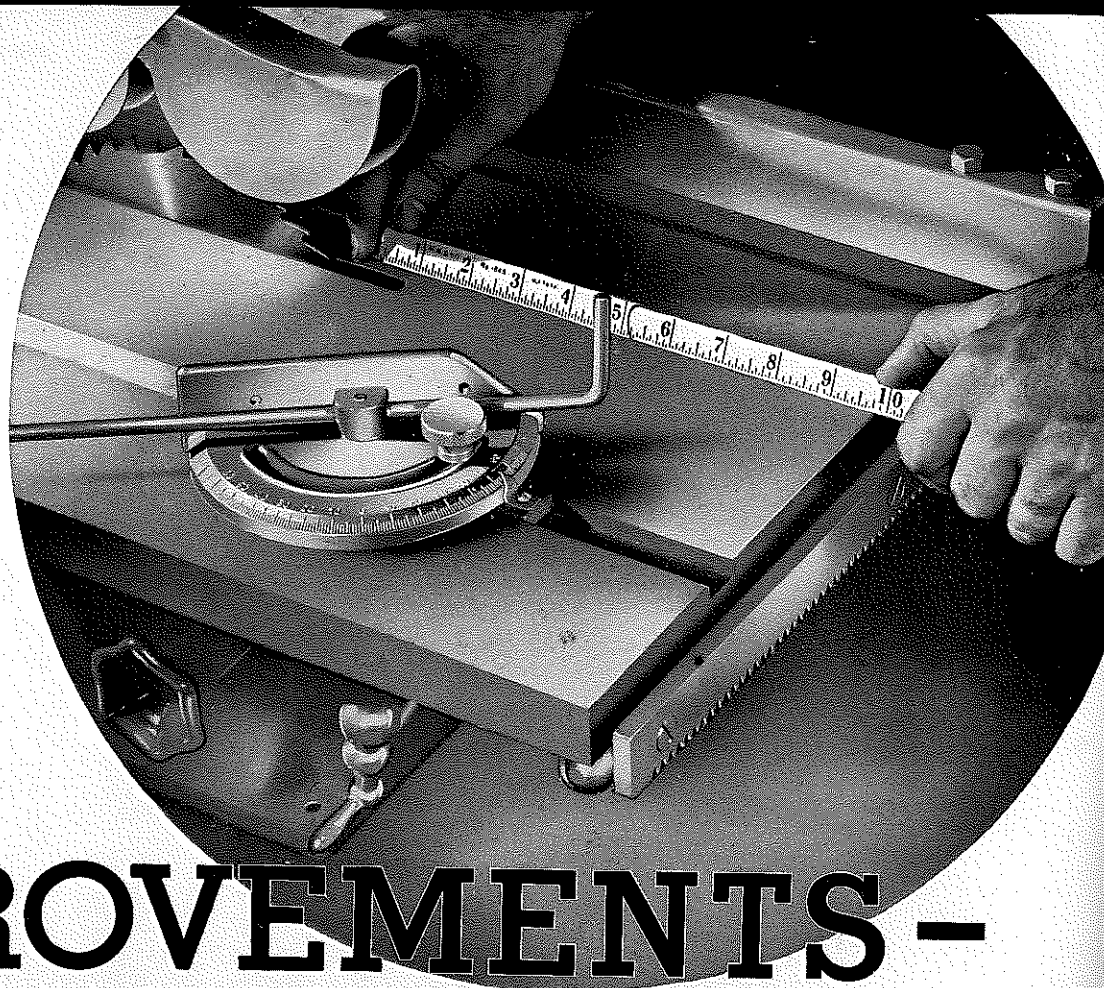
**\$4<sup>95</sup>**

**MONTGOMERY WARD**



## Larger Capacities

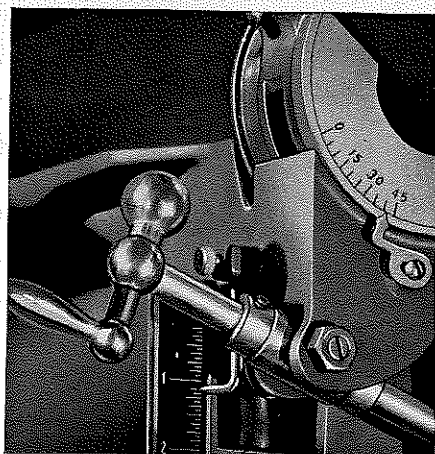
Wards Powr-Kraft Tools are really oversize tools—they do a bigger range of work, and do it easier. Our 8-in. Table Saw, for example, has 9 full inches of table ahead of the blade, where the usual space is less than 6 inches! Our \$4.95 Jig Saw has 12-inch throat instead of the usual 10 inches! Wards \$4.95 Lathe gives you 8-inch swing instead of the usual 6 inch! We had to design a complete new line of tools to give you these advantages—no existing tools offered them! And you don't pay more—in fact you actually pay less for these extra capacities in Wards Powr-Kraft Tools!



# IMPROVEMENTS - Every Shop Owner Wanted

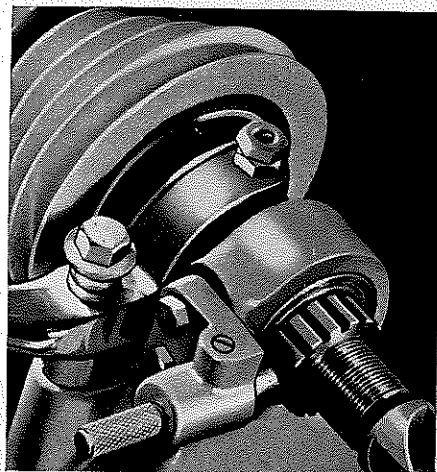
## Finer Precision

Here, too you get another feature you've always wished for—permanent and hair-line accuracy of adjustment! Complete redesigning made this possible! You'll find finely calibrated gauges—finely threaded controls—massive trunnions—and more of them on Wards tools! And by big, handy ball-cranks and wheels, we've put this measured, micrometer adjustment at your finger tips! Check for these features when checking value—you'll decide on Ward's tools!



## Greater Strength

Here you see how Wards have built permanent alignment and rigidity into each tool, and eliminated vibration, by the use of heavy, seasoned close-grain iron castings, in place of steel stampings! That's why these tools can handle—easily—the heavier work their larger capacities permit. That's why the net (un-crated) weight of Wards tools is far above the average—all extra quality, extra value for you!



Wards bring Shop Owners the biggest news in years! A brand new line of Power Tools has been designed—new from stem to stern! Now you can have larger capacity, finer precision, and greater strength of the kind formerly built only into heavy, industrial type machines! This big step forward means you can do practically all the jobs in the average home shop—and do them easier—without having to buy expensive “extras” and extensions!

Every page of this book brings you news of these important improvements! See how it is possible to do bigger and more accurate work even on Wards \$4.95 Lathe, as well as on our \$34.95 Lathe—and on Wards Band Saws, Table Saws, Drill Presses—Read how it is possible to do smoother, truer work on Wards \$10.95 Jointer, with its extra-long, milled ways—on Wards \$13.75 Spindle Shaper with its micrometer controls on each adjustment!

Wards Powr-Kraft Tools do finer precision work because they are built to closer precision at the factory. The Spindle on our \$34.95 Lathe is machined to 1/5000 of an inch—but even our shafting, at 23c a length, is ground to 1/1000 inch!

These are expensive improvements—but absolutely necessary to accuracy and simplicity of adjustments—so Wards include them at these prices. For really modern power tools, buy Powr-Kraft!

## You Can Buy on EASY PAYMENTS

On orders totaling \$20 or more, you can buy Powr-Kraft Tools with a small down payment and low monthly payments. Build your order up to \$20 and take advantage of this easy plan. Just be sure to use Easy Payment Order Blank, and follow table at right.

If Cash Price of Your Order Amounts to	Add for Easy Payment Price	First Pay- ment With Order	Monthly Payments
\$20.00 to \$25.00	\$2.50	\$3.00	\$4.00
25.01 to 30.00	3.00	3.00	5.00
30.01 to 35.00	3.50	4.00	5.00
35.01 to 40.00	4.00	4.00	5.00
40.01 to 50.00	5.00	5.00	5.00
50.01 to 60.00	5.50	5.00	6.00
60.01 to 70.00	6.50	6.00	7.00

### ESTIMATED FREIGHT CHARGES

on Powr-Kraft Tools per 100 lbs.: 100 mi. 67c; 200 mi. 93c; 300 mi. \$1.46; 500 mi. \$1.86; 750 mi. \$2.27; 1000 mi. \$2.77.



# \$9<sup>95</sup>

**EASY PAYMENTS**  
on \$20 Orders or More  
See Page 2



## 4 EXTRA FEATURES New at This Low Price

- Table (not blade) raises and lowers—no belt adjustments
- Table swings on trunnions, tilts and locks at any angle up to 45 degrees—accurate on every job
- Combination saw, miter gauge, rip fence, guard and splitter included
- Beautiful gray enamel finish—baked on. Easy to clean

## Wards 7-in. *Powr-Kraft* BENCH SAW

### EASIER TO USE—MORE ACCURATE IN ADJUSTMENTS

- Rips, cross cuts or miters clean and fast
- Depth of cut full  $2\frac{1}{4}$  inches
- Heavy cast iron throughout—will not warp
- Weighs over 31 pounds—runs steady and smooth
- 7-inch combination crosscut and rip blade
- Designed to meet all state safety codes
- Saw blade perfectly guarded at all times

- Accurately ground heavy cast iron rip fence
- Smooth top, machine ground cast table, size 10 by  $14\frac{1}{2}$  inches. Height  $8\frac{1}{2}$  inches to table top
- Table insert permits use of dado head or sanding disc
- Large oilless bronze bearings for long wear
- Convenient splitter back of guard prevents binding and stalling of saw

Trunnion mounting of tilting table gives unusual rigidity and smoothness, insuring absolute accuracy on every job. This construction permits a narrower, safer slot in table and prevents binding. Locks positively at any angle up to 45 degrees. Positive stops at 45 degrees and horizontal. Note the simplicity and sturdy construction of every part.

### Needed in Every Home Work Shop

Just about the handiest tool you could install in your home work shop. It cross-cuts, rips, miters and grooves with speed and accuracy. The full  $2\frac{1}{4}$ -inch cut gives you a capacity equal to much higher priced saws. Every part designed to give the longest possible service and the utmost in convenience.

It's easy to use Wards Powr-Kraft Bench Saw. Just a simple turn of a hand wheel and the table raises or lowers—the saw blade remains stationary. You don't have to adjust the tension of the belt every time you change the cutting depth of your blade.

The trunnion construction of the tilting table is another very convenient feature you'll find only in higher priced saws. Of course it costs more to build this way but it gives you absolute rigidity and accuracy not obtainable by any other method. The sturdy rip fence is heavy cast iron and accurately ground—it

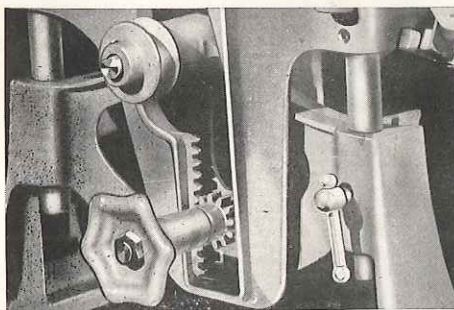
can't warp or twist. Easily adjustable and locks solidly.

A substantial miter gauge enables you to do correct cross-cutting and mitering. It slides at the touch of your thumb in a close-fitting, accurate groove. Table insert permits the use of dado head or sanding disc. (Dado heads and other accessories are shown on Page 21.)

The saw guard is designed to meet all State Safety Codes. It raises as work is fed to the saw and is easily swung out of the way if desired. A convenient splitter back of the guard prevents your blade from binding.

Nicely finished in durable gray enamel, baked on. Equipped with  $1\frac{1}{2}$ -inch pulley. Speed 3500 R.P.M. We recommend  $\frac{1}{3}$  H.P. electric motor shown on Page 23. ( $\frac{1}{4}$  H.P. will handle but work will be slower). Shipping weight 37 pounds.

484 WM 873—Complete..... **\$9.95**



Depth of cut is regulated by a convenient hand wheel which raises and lowers the table—not the saw! This construction enables you to place your motor either behind or below the saw—belt tension, once adjusted, "stays put." New and improved locking device locks table in position *without changing the adjustment!* Note the sturdy steel posts at both front and rear, giving firm support to table.  $\frac{1}{2}$ -in. shaft.



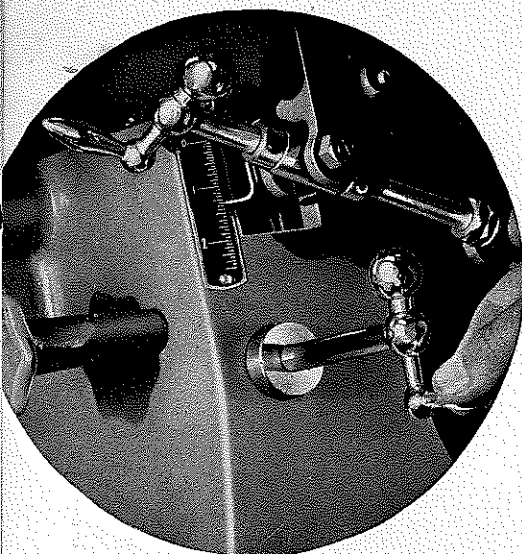
# Wards *Powr-Kraft* HEAVY-DUTY 8-IN. Designed for Home, School or Shop—



**\$29<sup>95</sup>**  
Cash  
Price

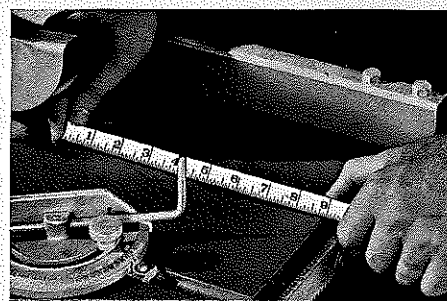
- Full 9-in. of table ahead of saw.
- Honest heavy duty—actual net weight, 85 lbs.
- Extra large table—16 in. wide and 20 in. long.
- Ball-crank raises and lowers table to control depth of cut. Easily read scale.
- New Departure Ball Bearings for smooth, easy, vibrationless operation.
- Table Tilts on big smooth acting trunnions.
- Cuts to depth of  $2\frac{3}{8}$  inches. Rip or cross-cut.

## Larger Capacity - Greater Weight - Improved



### Table Raised by Ball-Crank

Let's suppose you want to adjust the table to make a  $\frac{3}{4}$ -inch groove—*exactly*  $\frac{3}{4}$ -inch. It's as easy as winding a clock. Just turn the handy ball-crank until the pointer is opposite the  $\frac{3}{4}$ -inch mark. Then lock securely with the hand wheel on the side—a lock that does not disturb the depth adjustment. The ball-crank operates gears in racks on each of the two  $1\frac{1}{8}$ -inch posts, raising or lowering the table smoothly and without binding. The saw remains stationary—belt tension "stays put".

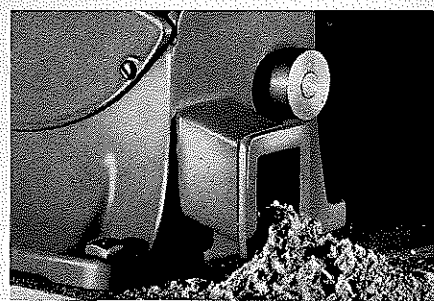


### Full 9 Inches of Table Ahead of the Saw

More space because you need more space! It gives extra room ahead of the saw to allow effective use of the miter gauge for proper squaring of work. Also braces and steadies when cutting extra wide stock. You're sure of doing a better job, whether cross-cutting, mitering or ripping. No special front extension is needed. The full 9 inches is always there, the table measuring 20 inches front to back and 16 inches in width—An exclusive Powr-Kraft feature.

We know of no other saw under \$75.00 that has a full 9 inches of built-in table space in front of the saw. It means everything to the man in the shop or factory. To turn out good work he has to have table room for the wider boards. With this extra space, he can do better work and do it faster.

This is just one of the many features that make Wards 8-inch Bench Saw so much more suitable for the job. It's built to stand up under the hard service required in school use and plenty heavy for daily production work in factories and shops.



### Handy Sawdust Chute Keeps the Shop Clean

No need now for throwing sawdust all around the workshop, all over the bench, or under your feet. Now Wards Powr-Kraft Bench Saw puts the sawdust right where you want it. A chute delivers it at the rear of the machine, and you can attach a bag to catch it there or a pipe to carry it on down to a bin. That's convenience and time saving.

This feature will be much appreciated in home workshop and factory as well. For not only does it keep the shop clean but it saves you time. Any craftsman knows how small tools like drills and wrenches have a way of getting on the floor and being swept out with the sawdust.

Note also how the base is enclosed. Helps to prevent carelessly passing your hand under the machine and contacting the blade of the moving saw. An easily removed panel is provided for exposing the understructure, when changing saw blades. Remember that these are conveniences usually found only in the higher priced Bench Saws.



# PRODUCTION SIZE BENCH SAW

## Zips Through Any Wood Like Magic!

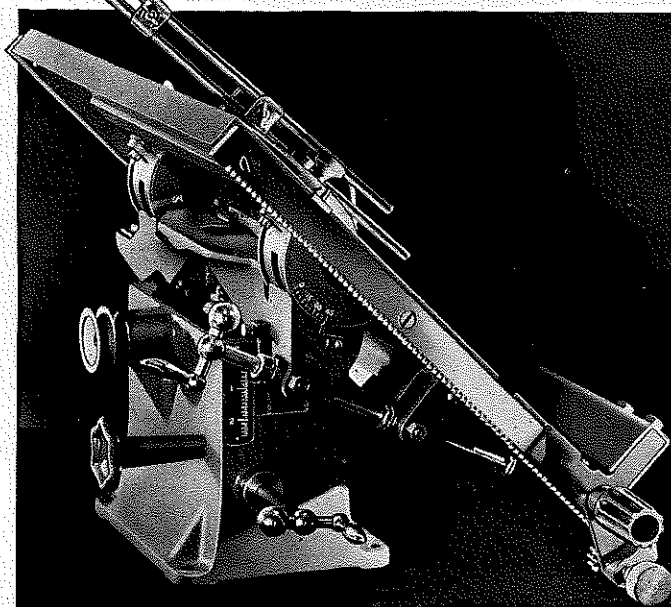
The kind of tool that makes a man hum tunes at his work... smooth-running, easy to handle and fast, clean, accurate cutter. Stocky, weighty and steady... 85 lbs. as it sets on your bench, uncrated! Every evidence of fine workmanship, big capacity and a lifetime of profitable utility. Simple, business-like, convenient adjustments... man-sized polished ball-cranks that turn smoothly and easily... nicely finished surfaces.

Except for pulley, miter gauge and guard this bench saw is constructed throughout of heavy, seasoned, non-warping cast iron. It is built to take the most severe service any school or busy shop can give it. Actual photographs, with descriptions of many of the features are shown on these two pages.

### Smooth, Positive Tilting Action

At the right is shown as sturdy, as true and as smooth acting a tilting mechanism as ever was put in a bench saw. Two unusually wide trunnions are rigidly fixed to the table top at front and rear. Having large contact surfaces and being very closely machined and fitted they serve to tilt the table with remarkable smoothness and accuracy. A few quick turns of the handy ball-crank runs the table top over to the required degree. The exact angle is indicated on scale located on the side of the front trunnion.

The saw blade is our standard 8-inch combination rip and cross-cut as described on Page 21. A removable insert in the table top permits attaching Dado heads, sanding discs, etc. The guard is an approved sensible type that always covers the blade. It swings out of the way when necessary. A splitter prevents binding of the blade. The heavy  $\frac{5}{8}$ -inch spindle runs on two heavy New Departure bearings grease-sealed for all time. With table at lowest position the saw is 9 inches high to top of table. Motor may be below or behind saw. Finished in durable baked gray enamel.

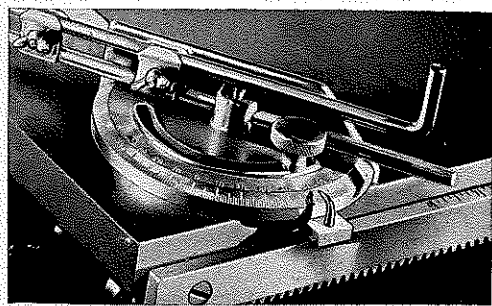


**Only \$3 DOWN** Puts this Bench Saw to Work in Your Shop

Includes 8-in. comb. cross and rip saw, rip fence, miter ga., guard, splitter, 2-inch pulley. Run at 3600 R.P.M. We recommend a Powr-Kraft  $\frac{1}{2}$  H.P. motor No. 484 WM 9811 or  $\frac{1}{2}$  H.P. motor No. 484 WM 9812 for ordinary work. For production work a  $\frac{1}{2}$  H.P. Powr-Kraft Repulsion-Induction motor. (See Page 23.) **\$29.95**  
 184 WM 661—Bench Saw as described. Ship. wt. 110 lbs.  
 184 WM 663—Same but including our Heavy Duty  $\frac{1}{2}$  H.P. Powr-Kraft Motor (110-volt 60-cycle) No. 484 WM 8811, also 4 in. motor pulley and 44 in. "V" belt ( $\frac{1}{2}$ -in. wide). Shipping weight 146 pounds **\$39.95**

For Easy Payments and Freight Rates See Page 2

## Design - Quick, Easy Adjustments - Precision Gauges

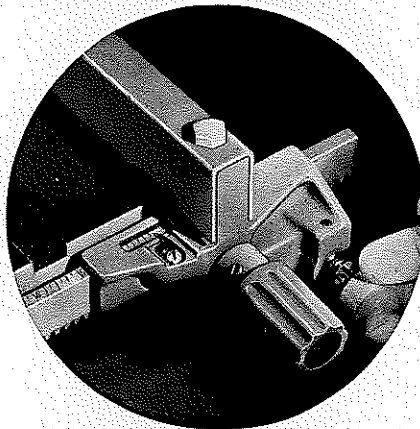


### Accurate Miter Gauge Massive—Easy to Use

A precision gauge. Swing it to the angle you want, lock it tight with the strong lock screw, place your material along the machine ground face and you're ready for the cut. It makes quick work of cutting true squares or angles. Panels of all sorts, screen frames and trim can be cut with complete assurance of correct fitting. An easily read and accurately graduated arc gives you the desired angle. Two removable cut-off rods for repeat work are mounted on top of the gauge.

The gauge is mounted on a large  $\frac{3}{4}$  by  $\frac{1}{2}$ -inch steel slide which fits closely in the machined table groove. Two grooves in the table top permit the gauge to be used on either side of the saw.

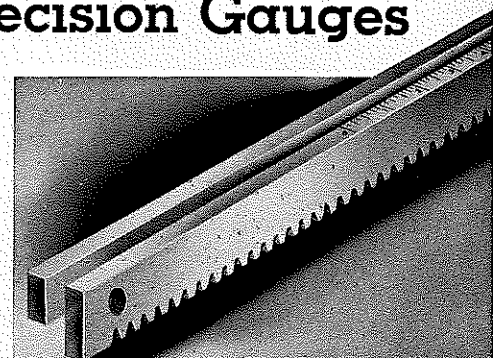
The gauge being such a highly important feature of any bench saw, Wards have spared no effort to provide a thoroughly practical type—one that even the most exacting worker will appreciate. It is included with the saw... not an extra.



### A Rip Fence You'll Like

Now a gear and rack arrangement permits setting the sturdy rip fence with real accuracy. By means of a pinion which engages a rack cut in a heavy solid steel bar you move the rip fence right or left. If you prefer, disengage the pinion and slide the fence along the bar, which is graduated in eighth-inches. A turn of the locking handle locks the fence securely and always parallel with the saw blade. Fence may be locked at rear end of table if desired.

The fence itself is heavy construction to prevent warping [or twisting, and may be used either to right or left of saw blade.



### Triple the Width of Your Table!

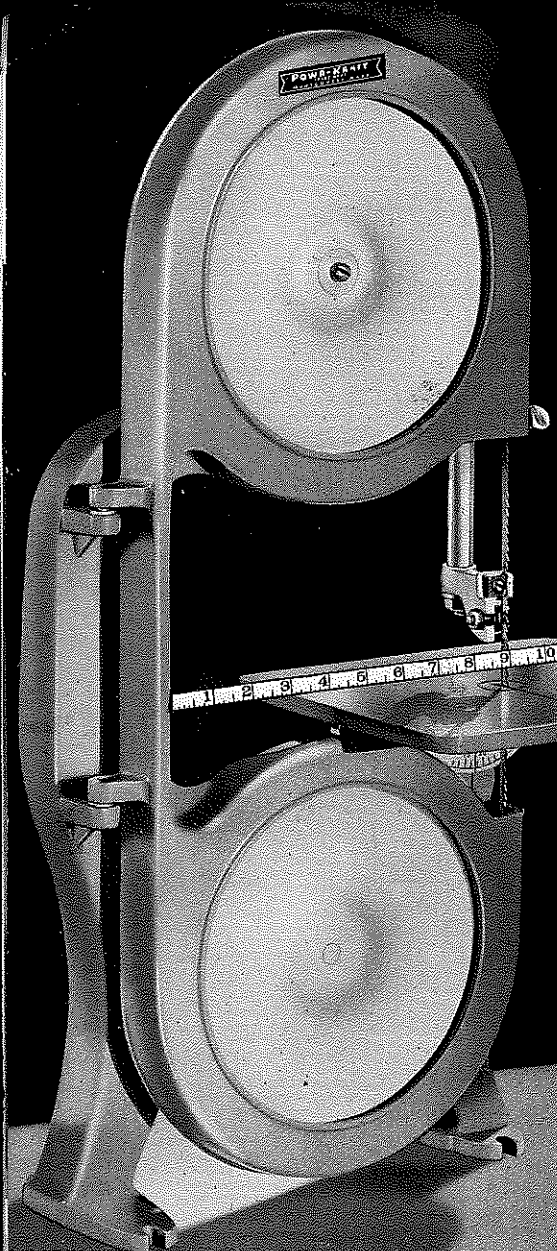
Increases the distance between the saw and rip fence to full 24 inches! You can rip to the center of a 4-foot panel with the work accurately guided! These extension rods, easy to attach and low in cost, give the user of the Powr-Kraft 8-in. saw all the capacity of the big expensive machines.

Without the extensions, if you should need to rip an extra wide panel, the best you could do would be to remove the rip fence, draw a pencil line on your panel and saw as nearly to the line as your eye would permit.

Two solid steel bars are furnished, fitting quickly on the front and rear of table. The rip fence is then attached and operated just as on the regular table. Shipping weight per pair 7 pounds.

84 WM 662—Extension Rods. **\$2.50**  
 Pair .....





# Wards *Powr-Kraft* 9-inch BAND SAW with Extra Heavy Frame

**\$13<sup>75</sup>**

**EASY PAYMENTS**  
See Page 2

- All heavy, gray cast iron!
- Cuts to the center of an 18-inch circle.
- Handles wood 4 1/4 in. thick.
- 1-piece safety guard.
- Table tilts on heavy trunnion—unusually rigid.

For smooth-running, effortless sawing this Band Saw is impossible to equal at the price—and hard to beat at any price! For the home workshop, or for light production, it will “stand the gaff” for years and take all the work you can feed it! We believe it superior to any other 9-inch band saw made.

For example, note its sturdy, rigid construction. It is strong and rugged because it is made throughout of seasoned, cast gray iron—non-warping, rigid as larger machines.

*Its deep channel frame* is cast in one piece, with many reinforcements, eliminating all of the springiness and insuring the true lining up of wheels always.

*Its tilting table*, 9 by 9 inches, is a heavy reinforced casting too (not a stamping), mounted on a huge double-way trunnion.

Even its one-piece swinging saw guard is cast iron—free from rattles. And all that extra weight means extra sturdiness, rigidity, and fine performance!

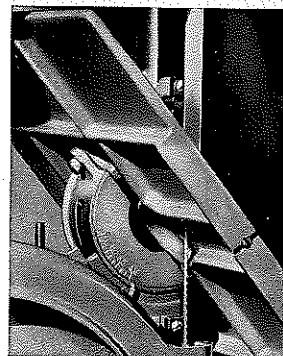
*Safe disc type wheels*, 9 3/8 in. diam., give it a full 9-in. cut, while its large clearance allows sawing stock up to 4 1/4 in. thick, with guards closed—with a business-like, effortless cut that will amaze you!

*Roller saw guide* is designed to permit blade to run on the edge (not the side) of the hardened steel roller, eliminating friction and blade breakage.

Gray baked enamel finish. Height 26 in. We recommend 1/3 H.P. motor although 1/4 H.P. will handle this saw on ordinary work. See Page 23. Run at 875 R.P.M. Easy Payments on Page 2.

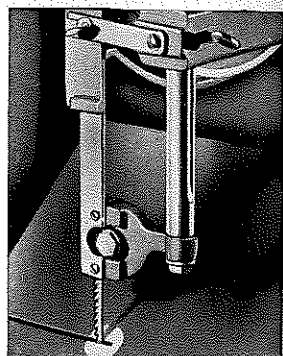
484 WM 870—9-in. Band Saw, with 1/4-in. blade and 4-in. “V” pulley. Ship. wt. 45 lbs. **\$13.75**

**NOW!**



## Trunnion Mounting

Heavy 12 by 12-inch cast table is mounted solidly on a huge double-way trunnion. This assures rigidity and keeps the blade in the center of the opening. Table tilts to 45 degrees and locks rigidly at the twist of a lever. No wrenches needed.

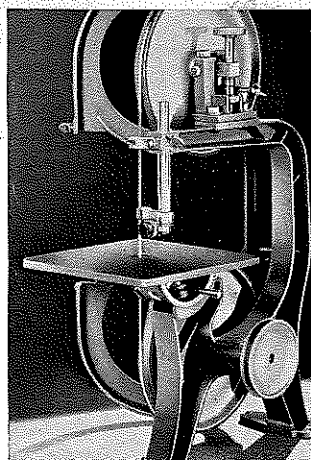


## Roller Guides

Blade runs on edge, not side, of hardened steel roller guides—reducing friction to a minimum. Guides placed below as well as above table for most accurate work.

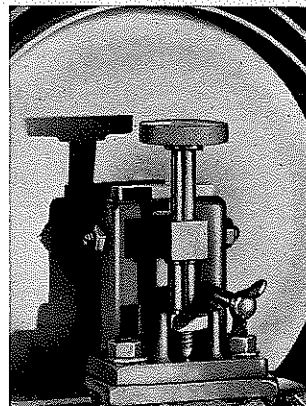
Note also how safety guard, attached to adjustable guide, covers blade except at cutting point.

## Rigid Alignment and Precision Adjustments Mean Finest Performance



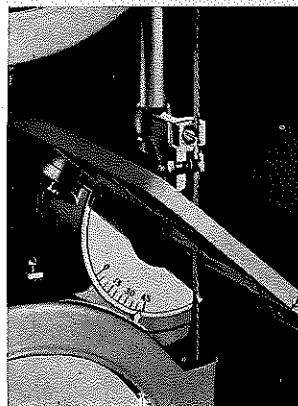
### Extra Heavy for Extra Rigidity

Strongly reinforced, semi-box frame of heavy gray iron, cast in one piece—non-warping, rigid, vibrationless! One-piece cast safety guard swings open for changing blades. Note the extremely long bearing on the wheel and pulley—the sturdiness of the whole machine!



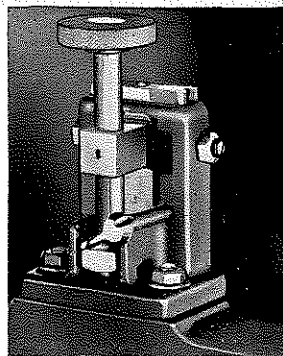
### Balanced Wheels for Smooth Operation

Heavy cast 9 3/8-in. disc wheels are carefully machined, accurately balanced, and run on long oilless bronze bushings. Rubber tires. Comfortable hand screws—the same as on high priced machines—make blade tension and wheel alignment instantly adjustable.



### No Vibration to This Table!

Heavy, reinforced, cast iron table, mounted on giant double-way trunnion for utmost rigidity! Table is 9 inches square, is surface ground, and has aluminum inset to protect blade. Graduated scale for accurate settings through 45 degrees. Squaring screw for instant levelling. Locks with lever.

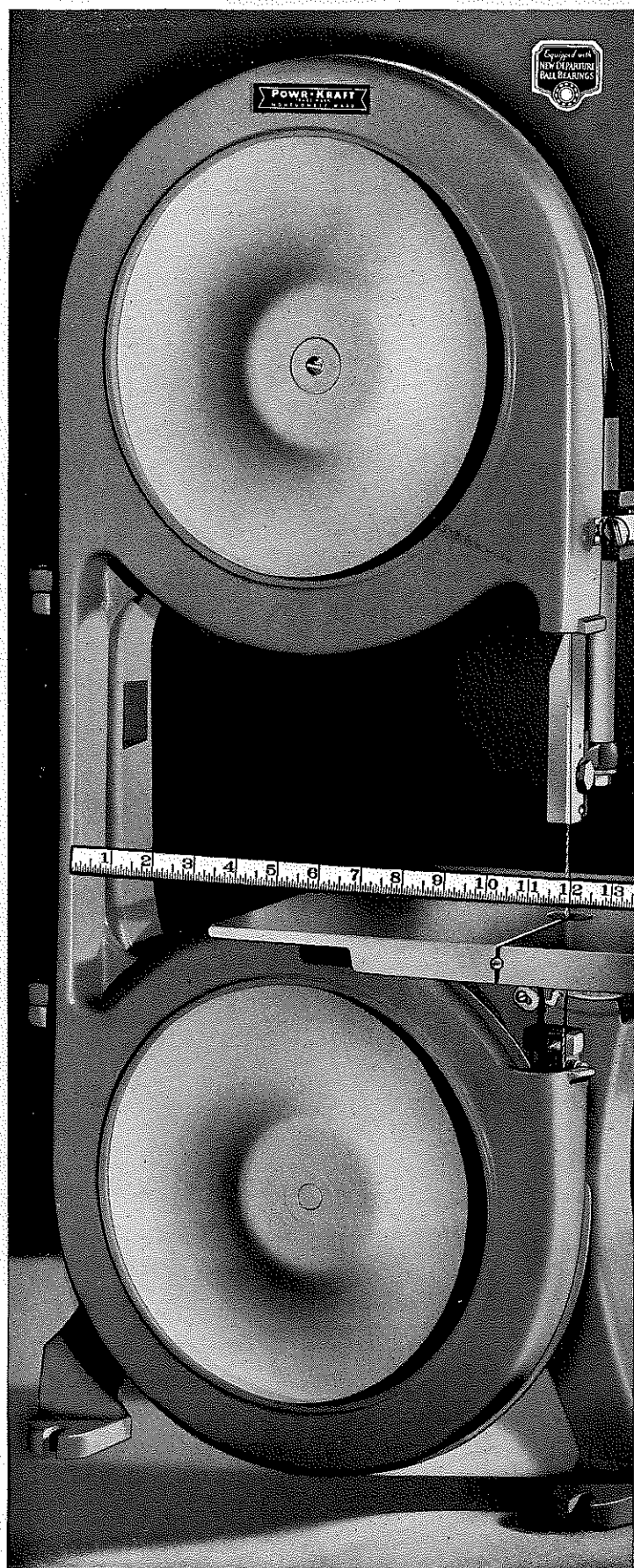


### Easy Adjustments

Wheel alignment and blade tension are very quickly and easily adjusted, without tools, by these large comfortable hand screws—and once adjusted, they stay adjusted. This is the same sturdy style of positive adjustment as is used on large factory band saws.



# We've Put *Twice* the Needed Strength into Wards *Powr-Kraft* BAND SAWS!



## That's Why This 12-Inch HEAVY DUTY Saw Is One of the Finest Made

- Full box frame—cast in one piece
- Extra heavy weight—83 lbs. net
- New Departure Ball Bearings in top wheel
- Cuts to center of 24-in. circle
- Takes full 5¼-in. stock with guard closed—6½ with guard open
- Extra sturdy, for home, school, or shop

**\$23.95**  
Cash Price

\$3 down

\$4 A MONTH

Our engineers designed this Band Saw from their experience with expensive production tools. They made it *twice as strong* as most people would consider "strong enough" because they wanted it rigid enough—smooth-running enough—to be used day after day by professional woodworkers. That's why it *out-performs* many saws which sell for twice our price!

**It's Vibrationless** because heavy castings of the finest gray iron absorb and dampen the vibrations from even the toughest sawing jobs, with the result that you can follow a line through the heaviest stock with ease.

**It's Rigid** because the one-piece cast iron frame is heavy, full box construction. It can't warp, spring, or get out of line; always runs true.

**It's Easy Running** because New Departure ball bearings in the upper wheel—and long, oversize, oilless, sleeve bearing in the lower—allow the wheels to turn with an absolute minimum of friction loss. These safe, disc type wheels are 12¾ in. diameter and perfectly machined and balanced. Rubber tires insure quietness, as well as long saw life.

Other features of superiority are described and pictured below and at the left (opposite page)—the heavy 12 by 12-in. cast table with trunnion mounting—the sensible roller guides that practically eliminate friction—the safe saw guard that protects blade at every point. Yet, in spite of this advanced design and heavy construction, Wards POWR-KRAFT Heavy Duty Band Saw is actually lower in price than many lighter weight saws.

Baked gray enamel finish. Height overall, 33½ in. Has ¼-in. blade of same high quality as shown on Page 21, and with 6½-in. "V" pulley. Run at 875 R.P.M. *Easy Payments on Page 2.*

184 WM 659—Band Saw, without motor. Ship. wt. 100 lbs. **\$23.95**

184 WM 660—Band Saw with ⅓ H.P. motor (110 volt 60-cycle) No.

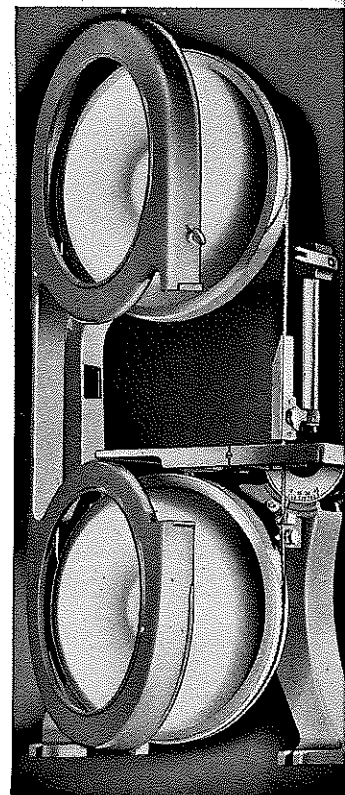
484 WM 9811 shown on Page 23, motor base, motor pulley, and "V" Belt. Ship. wt. 145 lbs. **\$35.95**

## Heavy Construction

Heavier than any other band saw we've ever seen selling at anywhere near this price. That's why Wards POWR-KRAFT Heavy Duty Saw is vibrationless—why it is rigid and solid—why it stays in permanent, free-running alignment, and turns out perfect work for years after other saws are worn out. Its full box, hollow frame is cast in one piece of heavy gray iron—as rigid and sturdy as much larger machines. The smoothly machined table is heavy cast iron too, solidly mounted on a heavy double-way trunnion. Even the one-piece swinging guard is cast iron—free from rattles—and it opens easily for quick changes of the saw blade.

Nothing equals cast iron for permanency and freedom from warping, and that's why we've used so much of it in our Heavy Duty saw—full 83 lbs. of it!

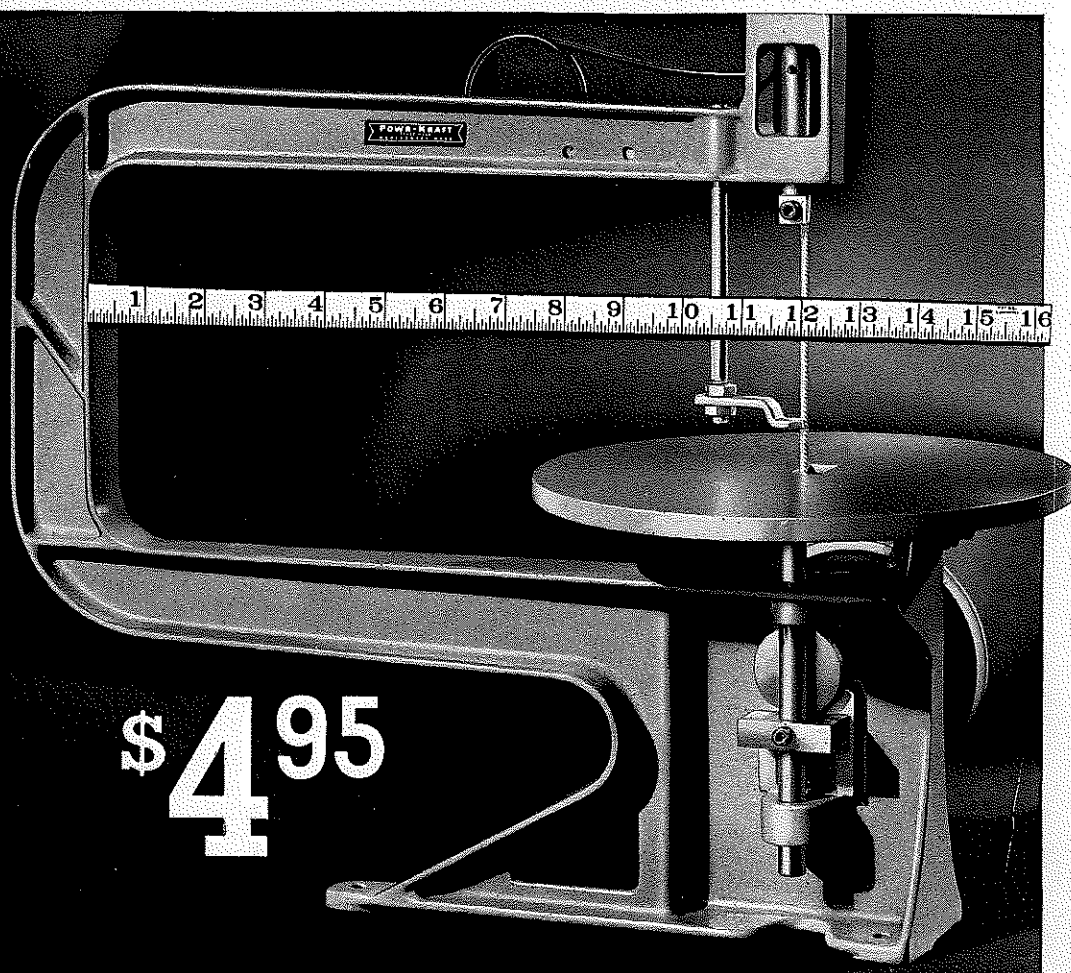
Now note the strength of the heavy, adjustable rod that holds the saw guide—it keeps the blade from bending and breaking and allows you to follow the most intricate line perfectly. And below the table is the same sensible, sturdy type of roller guide as above. All these details of strength and weight mean a *solid* machine—always in perfect line—delivering accurate work.





20 % MORE CAPACITY — 18 % MORE WEIGHT

## in Wards *Power-Kraft* 12-in. JIG SAW



Compare this Jig Saw with any other offered at this price. You'll find that—

Others have only a 10-inch throat—the POWR-KRAFT has a 12-inch throat.

Others handle stock about 2 inches thick—the POWR-KRAFT handles  $2\frac{7}{8}$ -inch stock and does it easily without stalling!

Others have a stamped steel table—the POWR-KRAFT has a surface ground, cast table for utmost rigidity and smoothness.

You'll find the POWR-KRAFT at least 18 per cent heavier in weight—consequently stronger, sturdier, and freer from vibration. Compare all of these important features before you buy. You'll find they would cost you a lot more anywhere else:

- **Extra heavy**—over 14 lbs. net—for rigidity and quietness and smooth operation.
- **Deep throat** for full 12-inch cut.
- **Handles stock up to  $2\frac{7}{8}$  inches thick.**
- **Tempered steel action** has long life.
- **Torsion type return spring** reduces blade breakage—a money and time saver.
- **Heavy cast table**,  $8\frac{1}{2}$  inches in diameter, tilts to 45 degrees in one direction.
- **Extra long bearing** means long service and smooth action.
- **Tempered blade guide and hold-down foot.** Easily adjusted for thickness.

## You've Always Had to Pay Much More for a Jig Saw with *Features Like These*

What a Saw for \$4.95!—a heavy, sturdy, sweet-running piece of machinery on which you can do fine, accurate work with ease. Yet it will stand up to heavy work too—with it you can cut to the center of a 24-inch circle, in wood  $2\frac{7}{8}$  inches thick! And it will deliver this kind of satisfaction for years!

Judge its sturdiness, its smoothness and quietness, from its net weight (unpacked) of 14 lbs. It weighs so much because it is made throughout of heavy, close-grained, gray cast iron—as solid as a bridge!

Nor is weight the only thing that makes this saw run better and last longer. Notice the thick, rigid, adjustable rod that holds the hardened steel saw guide and hold-down foot. See how the heavy base is carried back to assure extra solid mounting. Read about the smooth, long-wearing action of hardened nickel steel.

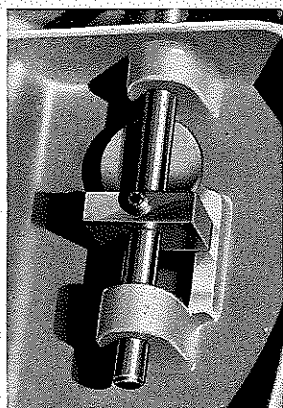
The carefully fitted drive shaft runs in extra long bearings, assuring long life and smooth operation. The upper head has *double* bearings, to keep the blade working absolutely straight up and down at all times. The lower bearing is double too, spaced widely to be entirely free from the usual chatter.

These quality details—this size and weight—are revolutionary in a jig saw at anywhere near Wards low price. They mean to you that *at last you can have a really fine power tool without spending the money that fine tools have always cost until now!*

Attractive gray *baked* enamel finish. Height overall 16 inches. Uses plain end blades. Furnished with 3-inch V pulley. (Use  $1\frac{1}{4}$  or  $1\frac{1}{2}$ -inch pulley on the motor or line shaft.) Our  $\frac{1}{4}$ -H.P. POWR-KRAFT motor (Page 23) will handle this saw nicely.

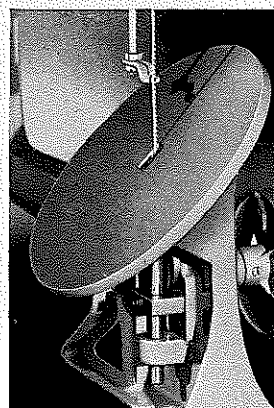
484 WM 875—Ship. wt. 18 lbs. . . . . **\$4.95**

8 MONTGOMERY WARD



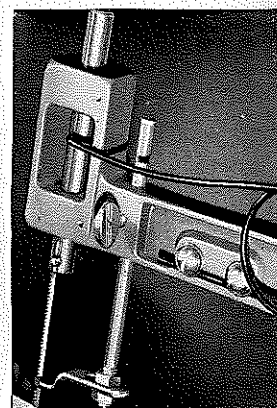
**Tempered Steel  
Cam Action**

Smooth-working and long-wearing!—A tempered steel cam, working against a tempered steel block, which rides on a machined surface! —Expensive construction, but it will show no sign of wear long after actions made of softer metal are completely worn out!



**Heavy Cast  
Tilting Table**

A heavy iron casting—not a mere stamping! That means a *solid* working surface. It's smoothly ground to perfect flatness, and it stays that way! Tilts through 45 degrees and locks rigidly in any position. Handy stop allows instant return to level.

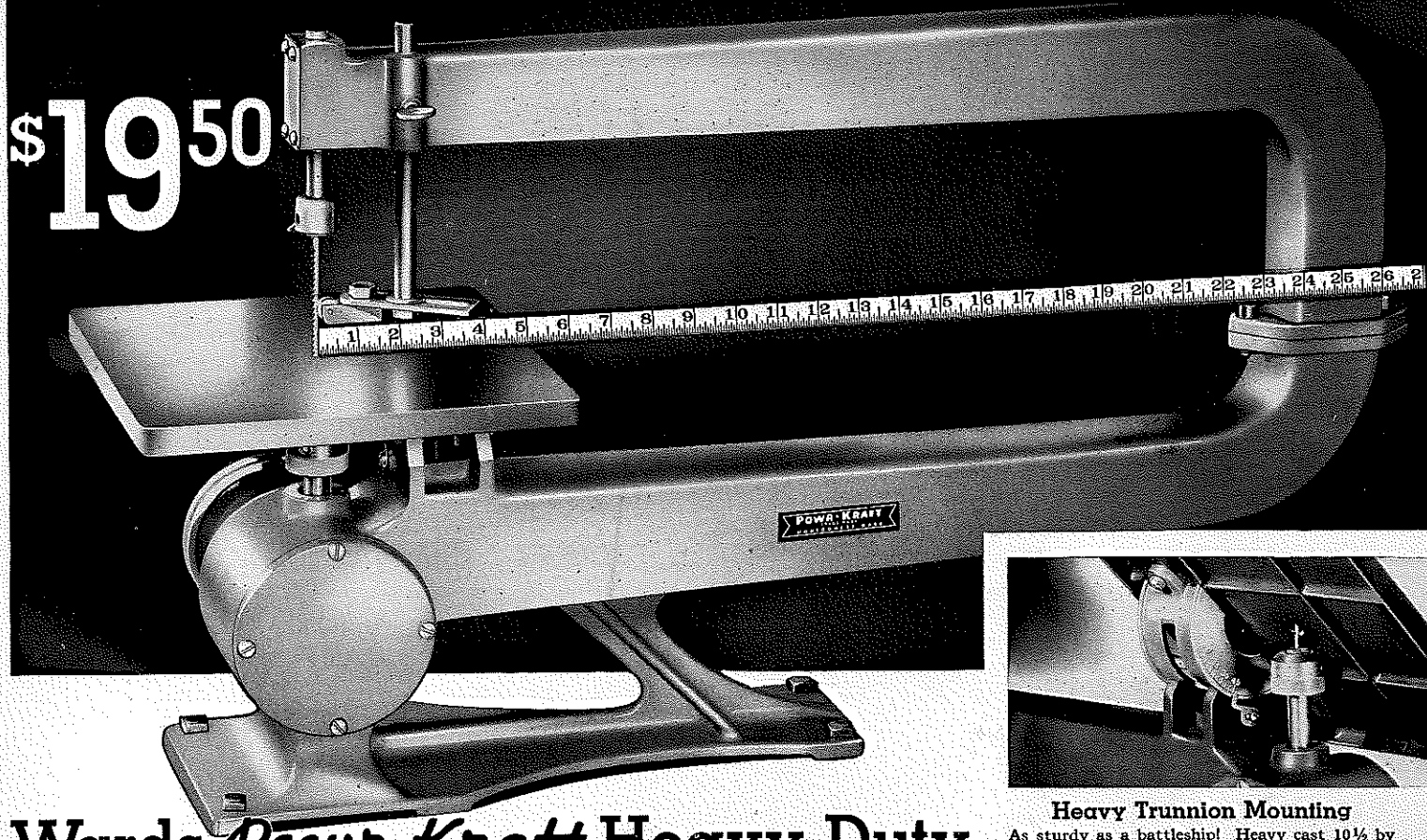


**Torsion Type  
Return Spring**

Less blade breakage because this heavy, positive-action, torsion spring assures an even tension at all times and at all of the points of the stroke. That means smoother operation too, as does the two-bearing head stock that prevents chatter.



**\$19<sup>50</sup>**



## Wards *Powr-Kraft* Heavy Duty 24-inch SCROLL SAW . . . .

**Latest BOX FRAME Construction  
for *Smoother-Vibrationless* Operation**

- Full box frame assures permanent rigidity.
- Heavy cast iron—weighs 60 lbs. uncased—prevents vibration at any speed.
- Balanced crankshaft and hardened steel movement, running in bath of oil.
- Universal chuck takes all types of blades, saber blades, files, sanders.
- Cast tilting table, surface ground.
- Air pump blows away sawdust.
- Takes work  $1\frac{7}{8}$  inches thick easily.

### The Choice of Skilled Craftsmen

Pattern shops—cabinet makers—factories—use this Scroll Saw for daily production work. We've built it to their rigid requirements, but priced it to yours. Now you can have, in your own home shop, a scroll saw equal to any job!

In building this saw, our engineers set out to eliminate vibration as far as humanly possible. It is vibration that wears out bearings—loosens precision adjustments—makes fine work impossible. Because the POWR-KRAFT Heavy Duty Scroll Saw is so nearly vibrationless, it enables you to do the most exacting work—follow the most intricate lines—easily! Yet it is so sturdily constructed that it will bite through the toughest job and is always hungry for more!

#### Extra Heavy Construction

Full 60 lbs. of the finest, seasoned, gray cast iron make this the heaviest machine offered within many dollars of this price. And all that extra weight is put where it will do real good, not merely into a heavy base. Its big rigid, *full box style* cast arm, and its heavy, solidly mounted cast table all mean one thing—*freedom from vibration*.

#### Precision Performance

Smooth operation and long life are further assured by finest possible construction and fitting of every working part. The balanced crankshaft, and the hardened steel movement, are enclosed in a dust-

proof housing and run in a constant bath of oil. The upper chuck spindle runs in two oilless bearings, keeping the blade absolutely vertical. The return spring is of the heavy torsion type, proved the most reliable in maintaining even blade tension.

This is expensive construction, but it practically eliminates wear, reduces vibration still more, and results in a quiet, easy-running machine that is a joy to operate!

#### Ideal for All Scroll Work

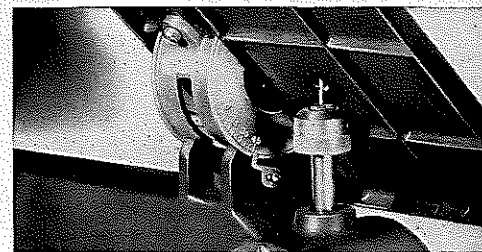
Both chuck jaws can be turned at right angles to cut long pieces without removing the arm. Chucks hold any type of blade—finest jewelers' blades—heavy blades—saber blades—metal cutting blades—files—sanding pencils. You can do any type of work on this scroll saw that can be done on any scroll saw!

Be sure to read all the features above and to the right. Then compare with any other scroll saw built. You'll find Wards POWR-KRAFT Heavy Duty cannot be equalled at near its low price!

Overall height 19 in. Finished in durable baked gray enamel. Equipped with 4-in. V pulley. Run at 800 to 1200 R.P.M. Requires  $\frac{1}{4}$ -H.P. motor. See Page 23. Est. Freight Charges, Page 2.

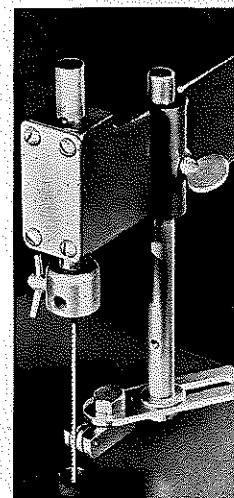
**184 WM 664—Scroll Saw only, with- \$19.50**  
out motor. Ship. wt. 78 lbs. . . . .

Easy Payments on \$20 Orders or More—See Page 2



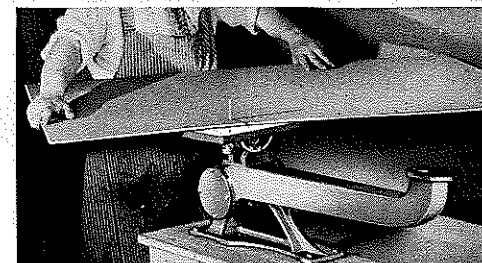
#### Heavy Trunnion Mounting

As sturdy as a battleship! Heavy cast  $10\frac{1}{2}$  by  $10\frac{1}{2}$ -inch table mounted solidly on large double-way trunnion, giving the greatest possible rigidity. This permits smaller opening in table too, because blade can be kept steadily in the center. Table tilts  $45^\circ$  in either direction and locks firmly with eccentric cam lever.



#### Hardened Roller Guide

Longer blade life assured because the blade travels on edge, not side, of freely turning, hardened steel roller guide—reducing friction to a minimum. Guide held by extra heavy, rigid supporting rod and is easily adjusted to accommodate work of various thickness or saw blades of different widths. Note enclosed head, with oilless bearings so no oil can drip on work. In it, a heavy torsion type return spring keeps blade at even tension always.



#### Arm Removable for Unlimited Capacity

Work on pieces of any size—make cut-outs from wall board, etc. Heavy universal chuck makes use of saber blades practicable. Since they do not require the support of the upper arm, we have made it removable to give this scroll saw unlimited capacity.



# Greater Accuracy - Easier Operation

**\$10<sup>95</sup>**

## Wards *Powr-Kraft* HEAVY-DUTY JOINTER

- **Blades of High Speed Steel** cut up to 4 in. wide, with  $\frac{1}{4}$ -in. maximum depth.
- **Oiless Bronze Bearings**—no oil on your work. Extra large ( $1\frac{1}{4}$ -inch) for perfect alignment of cutter.
- **Extra Long Tables**, surface ground.
- **Extra Long Milled Ways**—unusually rigid at all adjustments.
- **Extra Heavy**, non-warping cast iron throughout.

**EASY PAYMENTS**  
on \$20 Orders or More  
See Page 2

The Jointer is the one tool on which every operation must be perfect. It must produce work free from roughness and cupping, true from end to end, square on all edges. Because Wards engineers felt no low-priced jointer came up to these standards, they designed one that would!

They made it heavier (26 lbs. *net*) so it would be *solid*. They gave it long, accurately ground tables to support heavy work without teetering. They gave it extra long milled ways, so the tables could be accurately adjusted for cutting depth and then locked solidly—always exactly parallel. The cutting blades they made of high speed tool steel (not ordinary carbon steel) so they would take a keener edge and hold it. They mounted the cutter head on an accurately ground shaft, and dynamically balanced it after the blades were installed.

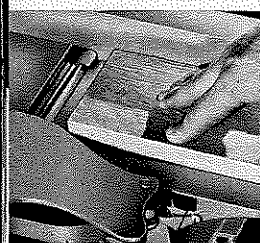
Instead of the usual 3,600 revolutions per minute, they designed this machine for speeds up to 5,000 to 6,000 revolutions, with a consequent greater smoothness of cut—15 to 18 thousand cuts per minute!

The result is a jointer we believe to be the finest within dollars of its price! Simply run your board over it once. Result:—a smooth, straight, square surface without a ripple!

Its sturdy rip fence is self-aligning, simply by tightening the hand knob, and its protractor scale enables you to set it accurately to any angle up to 45 degrees.

Tables are  $5\frac{1}{4}$  in. wide at narrowest point and are raised and lowered by convenient hand wheels. Front table has rabbeting arm. Lgth. 20 in. Ht.  $5\frac{1}{2}$  in. to table top. Baked gray enamel finish. Furnished with  $1\frac{1}{2}$ -in. pulley. We recommend  $\frac{1}{3}$  H.P. motor, but  $\frac{1}{4}$  H.P. can be used for light cuts. See page 23. Ship. wt. 31 lbs.

484 WM 667—Jointer, without motor ..... **\$10.95**



### Protection

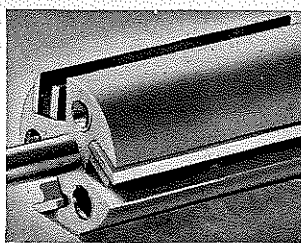
Heavy Cast safety guard swings open as work is fed in and returns to position as work passes cutter head. Its tempered spring assures quick, automatic return; therefore blades are guarded at all times. Guard easily removed.



### Convenience

No clogging of chips under a Powr-Kraft jointer. The extra high base permits easy removal. Convenient eccentric cam lever on side of base locks front table solidly at any height—no wrenches needed.

Note also the long milled ways on which tables slide. They keep tables absolutely parallel, even with heaviest stock.



### Efficiency

Round type safety head with accurately ground steel shaft running in large, oil-less, bronze bearings. Head is dynamically balanced after blades and chip breakers are installed.

The three 4-in. blades are of high speed tool steel (not ordinary carbon steel) and hold a razor edge. They are easily removed for sharpening.

## A WELL SANDED JOB TAKES A BETTER FINISH

### Wards *Powr-Kraft* Adjustable BELT SANDER

Now you can't afford *not* to have a Sander! This inexpensive power tool eliminates tedious hand sanding and does the job better—makes flawless surfaces and sharp, square edges in a fraction of the time.

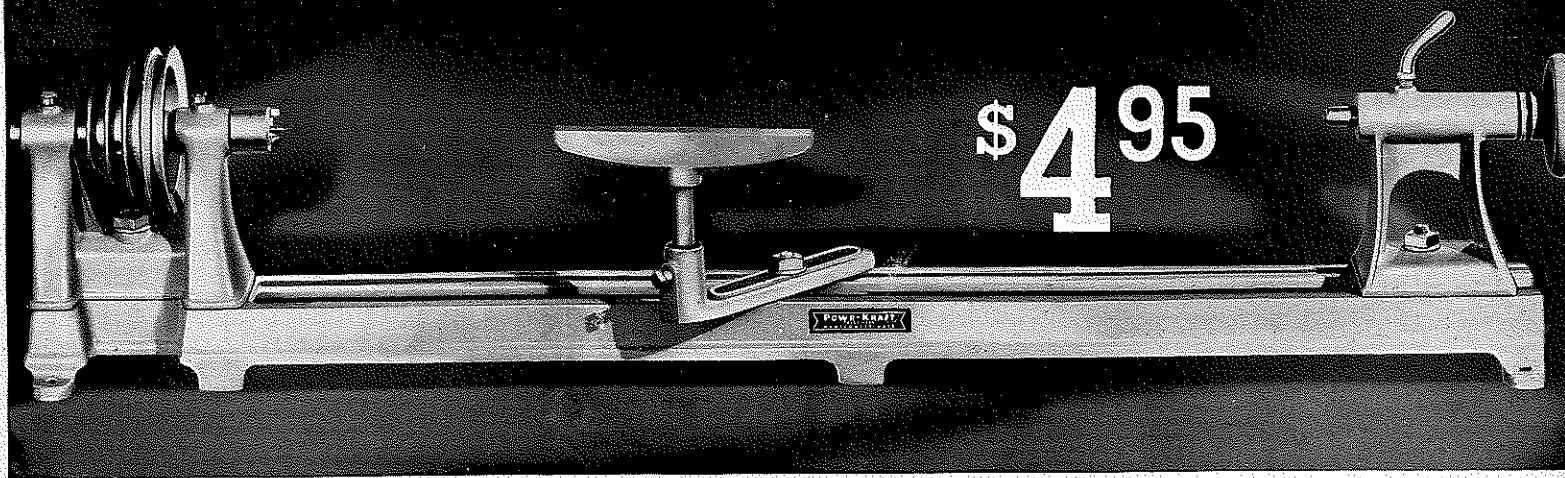
Its revolving abrasive belt runs over non-slip, rubber covered wheels that are held in perfect alignment by two adjustable steel rods mounted on the heavy cast base. The wheel shafts run smoothly in long 3-inch bearings, equipped with oilers. The heavy cast top is surface ground for absolute true-ness and securely anchored on heavy upright steel rods. The sturdy fence is adjustable to any angle; quickly removed.

Durable baked gray enamel finish. Length overall  $13\frac{1}{2}$  in. Ht.  $5\frac{1}{4}$  in. to table top. Table is 4 by 8 in. Uses 3 by 30-in. sanding belt. Run at 1200 R.P.M. Comes complete with 2-in. pulley and one medium belt. For coarse, fine belts see Page 21.

484 WM 877—Sander. Ship. wt. 12 lbs. .... **\$4.95**







# ALL THE FEATURES and *Size* of Most ~~\$19.99~~ LATHES!

- Big Capacity—8-Inch Swing—27-Inch Centers
- Rugged Strength—Weights Over 21 Lbs. Net
- Thrust Ball Bearing Head—4 Speeds
- Durable Baked-on Gray Enamel Finish

Big enough for 9 out of 10 home shops—in size and features! Quality enough in every detail to make it look like a bargain at \$10 if you saw it on any counter! Any way you look at it, this Lathe will delight every home shop owner—and every man or boy who hopes to own a shop!

Wards Light Duty Lathe brings you features you never saw before in a lathe at this price:

**Bigger Capacity.** Full 27 inches between centers—with 8-inch swing over the bed. And this lathe is sturdy enough to work at full capacity too, without vibration!

**Heavier Weight.** 21 lbs. net! That's because it's all heavy, first quality, well seasoned, gray cast iron. And that means it's rigid—much steadier and more solid than a stamped steel lathe can be. It's free from vibration and chatter, and it can't warp or spring out of line.

**Ball Thrust Bearing.** The sturdy head stock spindle runs in two big bearings, and against a ball thrust bearing, reducing the power required immensely and making for smooth, chatter-proof operation.

Then there are the perfectly machined ways—the 4-speed pulley—the carefully milled and fitted tail stock described below and at right. They are all features unusual in low priced lathes, and *never before, to our knowledge, found all together in one lathe at this price.*

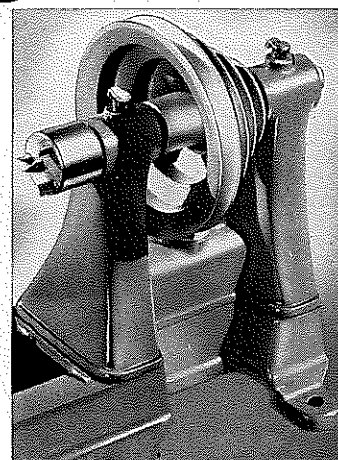
All these features mean a rugged, sturdy, he-man's lathe that will really turn out a first class job and do it easily! For light duty in the home workshop it will perform as well as lathes costing several times as much.

Overall length, 39 in. Maximum width of base, 5 in. Maximum height, 8 in. 6-in. adjustable tool rest and holder, spur and cup centers, and wrench included. Finished in *baked gray enamel*—long-lasting, easy to keep clean and new.

484 WM 865—Ship. wt. 26 lbs. . . . . **\$4.95**

To complete driving equipment order one 84 WM 9974 4-inch pulley of proper bore to fit your motor, and 3/8-inch "V" Belt. See Page 20. 1/4 H.P. motor will handle this lathe nicely; use 1/3 H.P. for faster work.

**For Wards Budget Plan of Easy Payments  
on Powr Kraft Tools see Page 2**

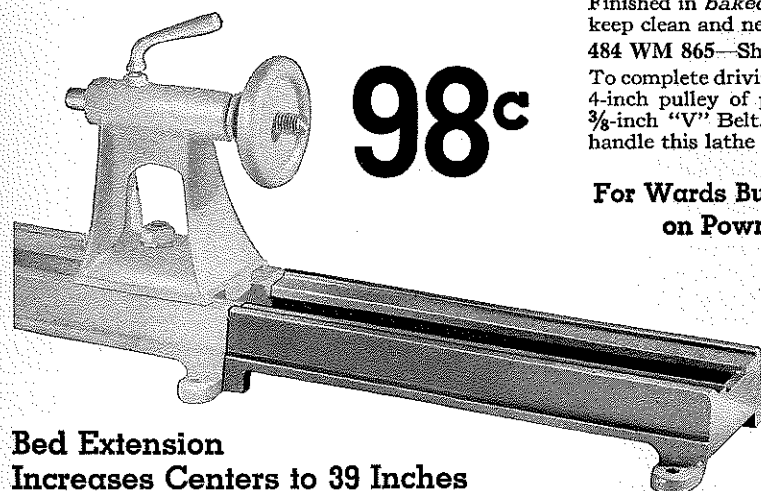


**Heavy, Solid  
Head Stock**

Big and husky! The heavy castings accommodate big smooth-running bearings—line the shaft up perfectly—while Thrust Ball Bearing eliminates wear and reduces the power required.

The 4-speed pulley has plenty of clearance to be driven from above, behind, or below.

Dependable spur center is removable so you can use a face plate.



**Bed Extension  
Increases Centers to 39 Inches**

If you want to turn longer pieces, simply add this 12-inch extension to the above lathe and increase its capacity to 39 inches between centers! It's built of heavy gray cast iron of the same design as the lathe bed, with the same carefully machined ways. Its milled end fits perfectly with the end of the lathe bed and lines it up properly. Tail stock will slide freely over the joint. Finished in durable baked gray enamel to match the lathe. Mounting bolts included.

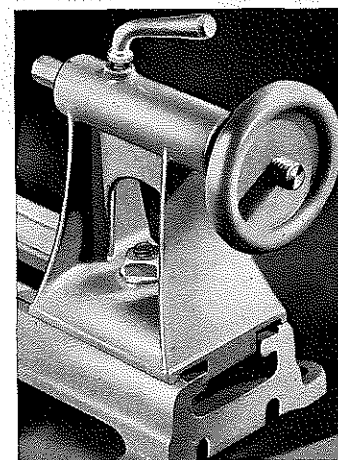
64 WM 867—Ship. wt. 4 lbs. . . . . **98c**

**Extra Sturdy Bed  
with Machined Ways**

It won't spring or vibrate, because it's heavy cast iron—much heavier, and much sturdier, even than beds on many \$10 lathes! That's *important* because it means the centers will always line up exactly, even after years of hard use.

The smoothly machined ways are important too, and almost unique at this price. They mean a perfectly flat, smooth bed top on which the tail stock and the tool rest slide easily—always with perfect alignment between centers.

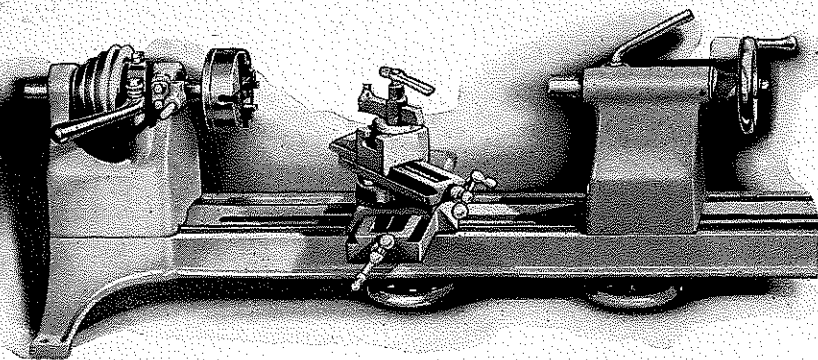
The end of the bed is carefully squared, and so skillfully machined that you can add the extension to the left and find it a *perfect fit*!



**Screw Feed  
Tail Stock**

Carefully milled bottom fits machined ways perfectly and slides easily, always maintaining perfect alignment between centers. Heavy flared base gives rigidity. Cup center, with hand wheel feed and positive locking lever.



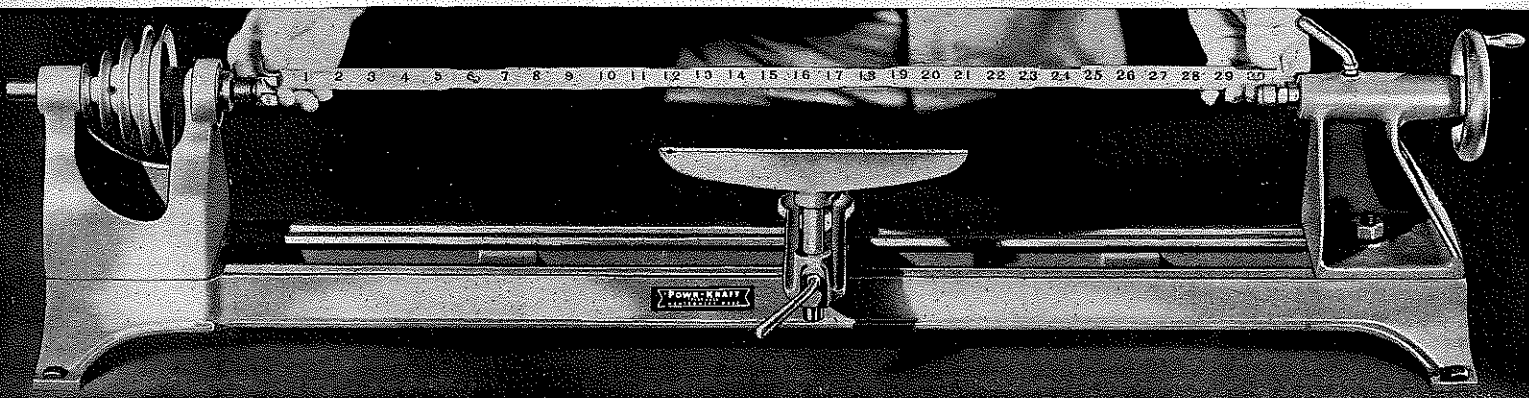
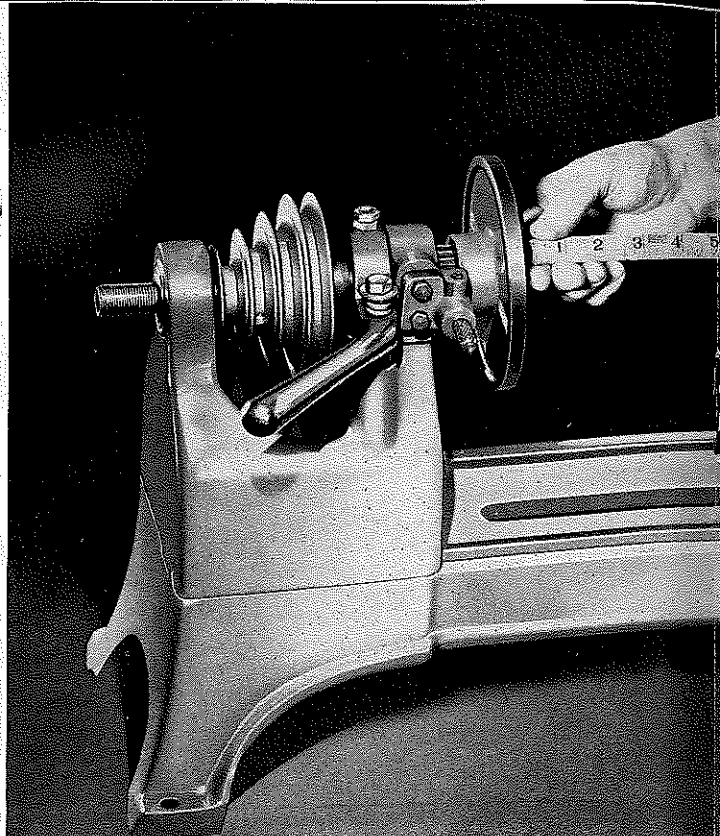


## Both of These POWR-KRAFT Lathes Can Be Used for Metal Cutting

The extra weight and extra stamina of Wards POWR-KRAFT Heavy Duty Lathes fits them ideally for the tough task of metal cutting. In the picture above you see lathe fitted with the simple attachments which quickly convert them into efficient metal cutters. Both lathes on this page are designed for metal cutting by being built with hollow spindles to handle long rods. Note both flat and V-ways for precise and permanent alignment of compound rests, tail and head stocks. A feature usually found only on higher priced lathes. Metal cutting attachments are fully pictured and described on Page 14.

Every garage and small shop today needs one of these lathes for turning commutators and similar metal-turning jobs—and the lack of this facility in the home work shop simply limits the amount of work.

**EASY PAYMENTS** You Don't Have to Wait Until You Have the Full Price \$3 Down Buys a \$20 Order—See Page 2



# Wards HEAVY DUTY *Powr-Kraft* Lathe

## EVERY CASTING OVERSIZE—SWINGS FULL 10-INCH STOCK

- Actual Net Uncrated Weight—43 Pounds
- Machined Gray Cast Iron Throughout
- 30-inch Capacity Between Centers
- Ball Thrust Bearing Reduces Friction
- Has both V and Flat Ways for Precision
- Hollow Spindle with No. 1 Morse Taper

# \$12<sup>95</sup>

**EASY PAYMENTS**  
See Page 2

### Precision Headstock

Heavy  $\frac{3}{4}$ -in. spindle, which runs on large oilless bearings, is hollow with  $\frac{3}{8}$ -in. hole, and fitted with No. 1 Morse Taper. Ball thrust bearing. 4-speed Pulley. Spur center included. Spindle projects at left for outboard turning; use any face plate with  $\frac{3}{4}$ -in. unthreaded hole.

If you want your shop equipped with an all purpose Lathe that has the features, the ability and the capacity to tackle the toughest jobs—and if you want all these things for no more than the price of an ordinary lathe—Buy Wards Heavy Duty POWR-KRAFT. It's the lathe you've been looking for—It will save you \$8 to \$10.

It has the weight, the stamina and the precision of a high priced lathe, giving rigidity and true performance at all speeds. It weighs full 43 pounds uncrated—giving it the needed rigidity that is so important for precision work. All castings are of Wards select quality, heavy, seasoned gray iron; expensively planed and milled before finishing.

Note particularly that this lathe has one "V" way and one flat way—instead of the usual inexpensive two flat ways—both so accurately

planed that the tail stock (or metal cutting compound rest) ride smoothly and always precisely aligned—particularly important on metal work. Extra width base provides a firm footing on bench, and yet is raised to allow easy removal-of chips.

Tail Stock spindle is operated by hand wheel and is equipped with No. 1 Morse Taper. Centers are self-adjusting. Maximum height  $10\frac{1}{2}$  in. Overall length 47 in. Our price includes spur and cup centers, tool rest holder and 12-in. tool rest. Finished in durable baked-on gray enamel. Ship. wt. 58 lbs. For Estimated Freight Charges See Page 2.

184 WM 868.....**\$12<sup>95</sup>**

Order 84 WM 9974 4-step "V" Pulley of proper bore to fit your motor, and  $\frac{1}{2}$ -in. "V"-Belt of proper length, from Page 20.



**\$34<sup>95</sup>**  
\$4 down  
\$5 A MONTH

## Wards *Power-Kraft* EXTRA HEAVY DUTY Commercial Type Lathe PRICED FOR THE HOME WORKSHOP

- A Big Brute—109 lbs. net—for Severest Service
- Oversize in Every Way—Swings 13-inch Stock Over Bed
- Full 36-inch Capacity Between Centers
- Only \$4 Down Puts This Fine Machine in Your Shop—See Page 2

It's the last word in woodworking machinery! Here's a big, husky, oversize Lathe that has all the stamina, improvements and fine precision to give genuine pleasure to the handy man who prides himself in the ownership of only the finest tools. Price alone should make it your first choice over any ordinary home shop lathe. Professional in its specifications—its construction makes it entirely suitable for commercial work—and certainly adequate for the most ambitious job any home shop owner would undertake.

Just picture yourself in place of the man in the above photograph. See by actual comparison how its length measures up with your arm spread—the massive bulk of its beautifully balanced bed—the head and tail stock which dwarf the size of an average man's hand. And when you uncrate it, you will find it even bigger, finer, huskier than you expected.

### Vibrationless Performance

From soft wood to hard metal Wards Extra Heavy Duty Lathe turns them all with surprising ease, exceptional quiet, and absolute smoothness, because it's backed by weight and quality. The extra grade of gray iron castings used eliminates all possibility of warping and promises permanently true alignment of centers. 109 lbs. of weight give astounding quietness.

### Improved Extra Large Bed

Look at the close-up picture of tail stock at right again, and see the improved ways. One large "V" way and one flat way—both carefully planed—together with the precision construction throughout permit an accuracy of adjustment never achieved in a Home Shop Lathe before. Bed is 6 in. wide at top. Full 3½-inch legs allow you to clean out chips easily.

### Precision Hollow Spindle

1-inch hollow spindle is ground to an accuracy of 1/5000-inch—that is POWER-KRAFT Precision. It

runs smoothly on heavy New Departure Sealed Ball Bearings. Threaded at both ends. Will accommodate ⅝-inch rod. Steel spring ratchet locking device for fluting, shown above at right, is far superior to the usual lathes with holes punched in a soft pulley and their insecure pin lock fastenings.

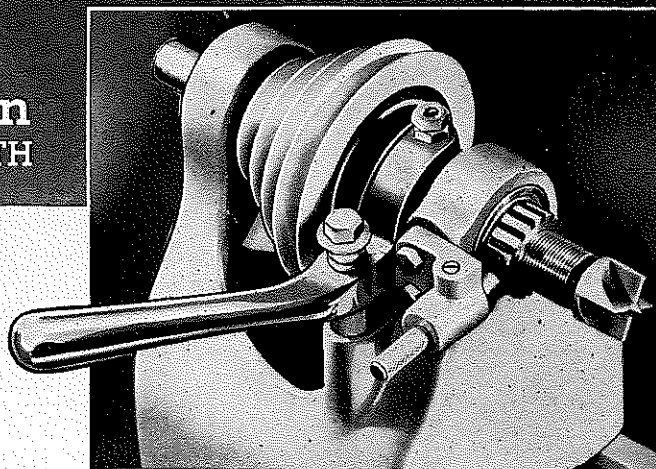
### Other Outstanding Features

Complete with 4-speed pulley, which operates with motor above, behind or below lathe; 3½-in. face plate; tool holder; 12-in. tool rest; 56-in. V-belt; spur and cup centers. Finished in durable baked-on gray enamel. Overall length 54½ in. Maximum height 14½ in. Ship. wt. 141 lbs. Estimated Freight Charges Page 2.

184 WM 658—Cash Price.....**\$34<sup>95</sup>**

84 WM 9989—4-step Motor Pulley to match lathe pulley. State ½, ⅝ or ¾ in. bore. Ship. wt. 2 lbs. 75c

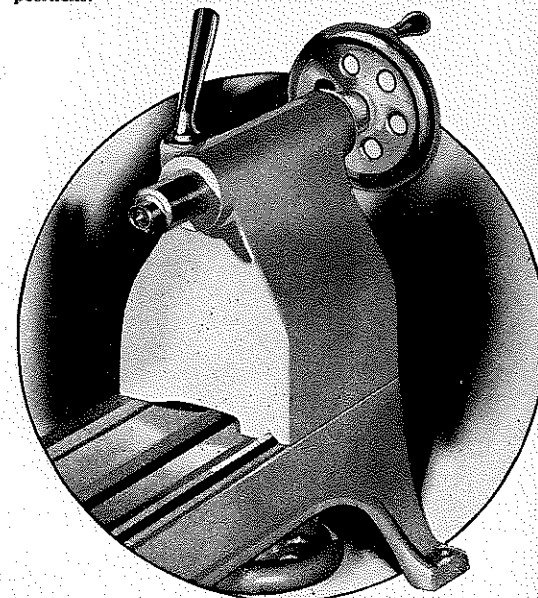
484 WM 657—Pair of Pillar Blocks to increase swing from 13 to 21 in., also larger tool rest holder. Ship. wt. 17 lbs.....**\$6<sup>75</sup>**



### Exclusive! Instant Clutch-In-Head Control

Quick, positive control at your finger tips. A mere flip of the nickel plated throw-out lever disengages motor instantly—Starts and stops lathe without touching the power switch.

Improved ratchet device gives you better fluting results, because it locks securely in any of 16 different positions.

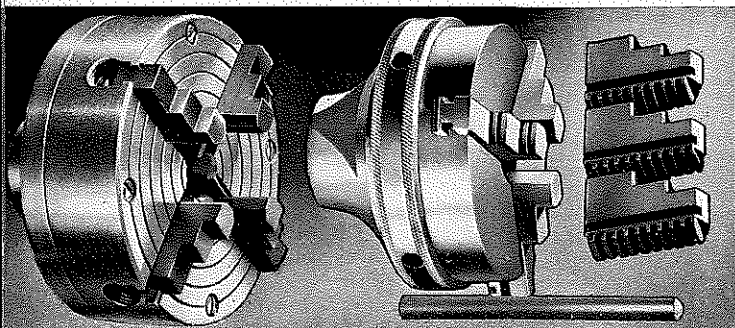


### Precision Action Tail Stock

No more wrench fussing! POWER-KRAFT has 5-inch hand wheels under bed to lock tail stock and tool rest securely. Large hand wheel gives micrometer adjustment on spindle. Full 3½-in. quill movement locks firmly by lever. Centers are self-ejecting.



# Precision Built Lathe Accessories



## 4-jaw Chucks

Substantially and accurately built with hardened steel reversible jaws. Each jaw works independently. 4-in. capacity. Wrench and back plate included. Ship. wt. each 7 lbs.

84 WM 8802—Fits No. 84 WM 658 Extra Heavy Duty Lathe (Page 13) or any lathe with 1-in. spindle, 16 threads per inch. .... \$4.95  
84 WM 8803—Fits No. 84 WM 868 Heavy Duty Lathe (Page 12) or any lathe with 3/4-in. spindle, 16 threads per inch. .... **\$4.95**

## 3-jaw Automatic Chuck

A carefully machined precision tool with 3-inch capacity. Three hardened steel jaws work simultaneously to grip work firmly.

Fits No. 84 WM 658 Extra Heavy Duty Lathe (shown on Page 13) or any lathe with 1-inch spindle, 16 threads per inch.

Key and extra set of jaws included as shown. Shipping weight 6 pounds.

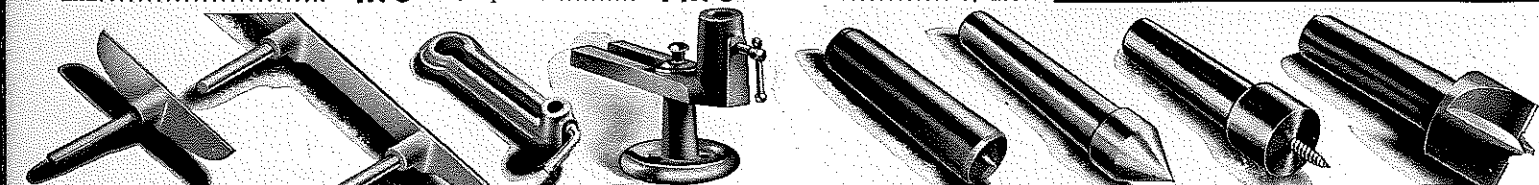
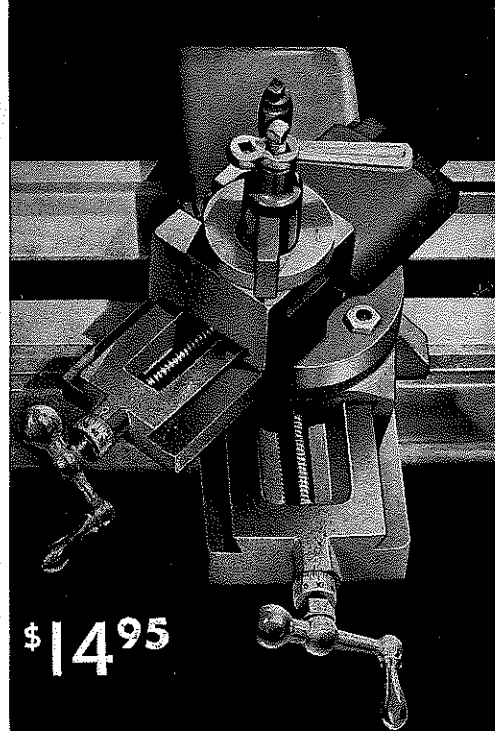
84 WM 8804—Complete. .... **\$14.95**

## Compound Rest For Metal Turning

A heavy, substantial Tool Rest built with the greatest precision. You know it's husky because it weighs 19 1/2 lbs. net—which means it will handle the toughest metal turning job you will want to tackle. Swivel base graduated in degrees, and both longitudinal and transverse feed handles calibrated in thousandths of an inch. That's why you get micrometer accuracy in your finished work—each turn of either handle equals only 1/1000 in. of travel. This is easily read on micrometer gauges at the handles. Longitudinal feed (same direction as bed) is 6 1/2 in.; transverse feed (across bed) 7 in. All ways carefully machined to .60", and gibbed for take-up. Tool holder included. Ship. wt. 24 lbs.

84 WM 8800—Rest for Number 84 WM 658 Extra Heavy Duty Lathe. .... \$14.95

84 WM 8801—Rest for Number 84 WM 868 Heavy Duty Lathe. .... \$14.95



## Cast Iron Tool Rests

Top accurately ground and straight. Post will fit holders listed at right.

84 WM 8840—For any tool rest holder with 1-in. hole. *Stafe size.* 4-in. size. Ship. wt. 2 lbs. .... **69c**  
12-in. size. Ship. wt. 3 lbs. .... \$1.00  
24-in. double post. Ship. wt. 7 lbs. .... 1.95  
84 WM 8841—18-in., double post for holders with 3/4-in. hole. Ship. wt. 5 lbs. .... \$1.50

## Cast Iron Tool Rest Holders

Accurately machined to fit lathe bed.

84 WM 8836—Tool Rest Holder only, as pictured at left above. Fits No. 84 WM 868 Heavy Duty Lathe. 3/4-in. hole. Ship. wt. 3 lbs. .... **75c**  
84 WM 8835—Complete with 5-in. hand wheel and bolt. Accurately bored hole for tool rest post is 1 in. in diameter. Fits 84 WM 658 Lathe. Ship. wt. 9 lbs. \$1.45

## Cup Centers

Accurately ground hardened steel. Ship. wt. 8 oz.

84 WM 8816—With No. 2 Morse Taper Shank. .69c  
84 WM 8817—With No. 1 Morse Taper Shank. .65c

## 60° Centers

Hardened steel, ground to fit. Ship. wt. 8 oz.

84 WM 8812—With No. 2 Morse Taper Shank. .69c  
84 WM 8813—With No. 1 Morse Taper Shank. .65c

## Screw Centers

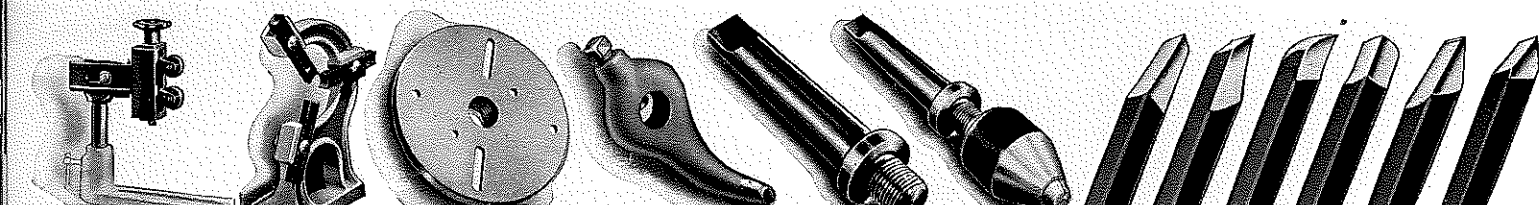
Accurate taper, removable screw. Ship. wt. 8 oz.

84 WM 8818—With No. 2 Morse Taper Shank. .69c  
84 WM 8819—With No. 1 Morse Taper Shank. .65c

## Spur Centers

Fine quality hardened steel. Ship. wt. 8 oz.

84 WM 8814—With No. 2 Morse Taper Shank. .69c  
84 WM 8815—With No. 1 Morse Taper Shank. .65c



## New Back Rest

Mounts behind when turning long pieces. Rollers adjusted as work progresses. Fits tool rest holder with 1-in. hole. Ship. wt. 4 lbs.

84 WM 8846 \$3.45

## Steady Rest

Adjustable for work up to 2 1/2 in. diam. Ship. wt. 6 lbs.

84 WM 8844—For 84 WM 658 Lathe. .... \$2.25  
84 WM 8845—For 84 WM 868 Lathe. .... \$2.25

## Face Plates

Ship. wts. 3 and 2 lbs.  
84 WM 8830—6-in. diam. For 84 WM 658 Lathe. \$1.50  
84 WM 8831—3 1/2-in. For 84 WM 868 Lathe. \$1.25  
84 WM 8832—6-in. dia. For 3/4-in. unthreaded spindle. \$1.00  
84 WM 8833—3 1/2-in. diam. For 1/2-in. unthreaded spindle. .... 75c

## Lathe Dog

Drop forged from highest quality bar steel, insuring required strength and toughness. Ship. wt. 8 oz.

84 WM 8811—3/4-in. size. 45c

## Center for Jacobs Chuck

Heat treated steel. Fits Jacobs Chuck on POWER-KRAFT Drill Press. Ship. wt. 8 oz.

84 WM 8822—No. 2 Morse Taper Shank. .69c

## Chuck Centers

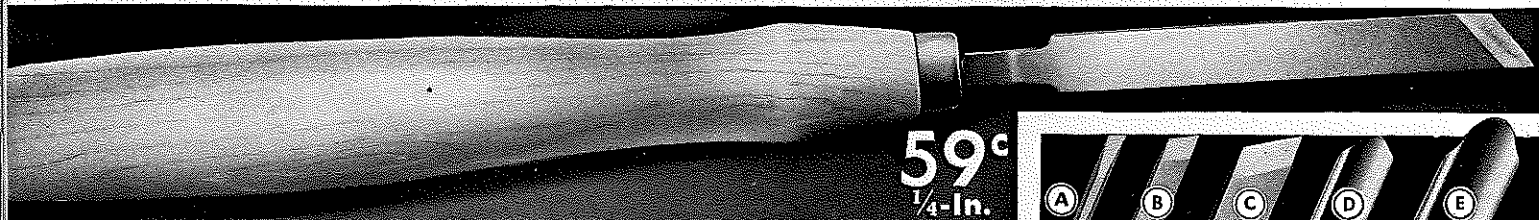
Equipped with 1/2-in. chuck shown on Page 19. Ship. weight 1 lb. 8 oz.

84 WM 8820—No. 2 Morse \$1.25  
84 WM 8821—No. 1 Morse \$1.25

## High Speed Tool Bits

It's the "Super-Dreadnaught" high speed tool steel that makes these first quality bits exceptionally tough and durable. They're ground, ready for use, and heat treated to hold a keen cutting edge. The complete set of six bits consists of round nose turning tool, right and left hand turning tool, right and left hand facing tool, and threading tool. Fit tool holder of compound rests above. Ship. wt. per set, 1 lb.

84 WM 8809—Set of 6. .... **69c**



**\$3.29**

## Wood Turning Chisel Set

Same Chisels as listed at right. Set consists of 1/4-in. and 1/2-in. skew, 1/8 by 1/2 in. parting tool, 1/2-in. and 3/4-in. gouge. Complete in durable canvas roll.

84 WM 723—Ship. wt. 3 lbs. Set of 5. .... \$3.29

## Medium Grit Slip Stone

Keep your gouges in best-cutting condition. Cuts rapidly and gives a smooth keen edge to your tools. Length 4 1/2 in.

84 WM 2427—Ship. weight 8 ounces. **39c**

## Wards Power-Kraft Crucible Steel Chisels

Chisels that *stay sharp!* Only highest quality crucible steel, correctly tempered to hold a razor edge, is used in these professional chisels. They come to you sharpened to a hair-splitting edge, and they are easily kept that way. That means they will do finer, smoother work than is possible with easily dulled, carbon steel chisels usually sold for this price.

Under their manufacturer's own name, these tools sell for at least twice what we ask. Blades are 4 inches long, fully polished, and ready for use. Fitted with man-sized polished hardwood handles 8 inches long. Ship. wt., each, 1 lb.

(A) 84 WM 722—3/8 by 1/2-in. Parting Tool. 69c  
(B) 84 WM 733—1/4-in. Skew. .... 59c  
(C) 84 WM 720—1/2-in. Skew. .... 65c  
(D) 84 WM 732—1/2-in. Gouge. .... 69c  
(E) 84 WM 721—3/4-in. Gouge. .... 89c

# Wards Powr-Kraft 10-Speed Utility BENCH DRILL

Here's where the home craftsman finds a real Drill Press—with weight, capacity and precision—at a mighty low price.

The facts tell you it's a quality job throughout and a pleasure to use. You might expect a light machine at this price—but not this one. It weighs, uncrated and without motor, 26 lbs.—positive proof that it's a heavy machine! Sturdy cast iron throughout. Its accurately ground steel spindle runs on oilless bronze bearings.

Excellent quality 3-jaw chuck of 1/2-inch capacity. Heavy cast table 8 inches in diameter, machine ground and slotted.

Height overall, 26 inches. Maximum distance center of drill to column 6 inches. Maximum distance chuck to table 7 3/4 inches. Finished to match other Powr-Kraft tools in durable baked gray enamel.

A 1/4 H.P. motor is suitable for all ordinary work but we recommend a 1/2 H.P. motor for maximum utility. See motors on Page 23.

184 WM 878—Drill Press only, without motor. Shipping weight 35 pounds. . . . . \$9.95

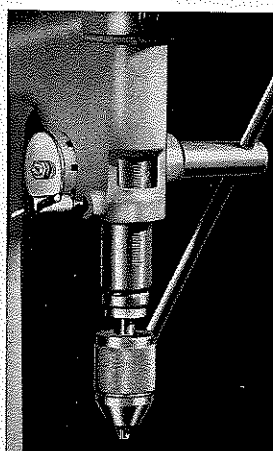
Besides motor you will need an 84 WM 9974 4-step pulley to fit motor, and 84 WM 9964 39-in. "V" belt. See Page 20.

**\$9.95**  
Less  
Motor

CHECK

## THESE FEATURES

- Convenient Depth Gauge
- Takes up to 1/2-in. drills
- Heavy Gray Iron Castings
- Large Bronze Bearings
- 10 Speeds. "V"-Belt Drive
- Positive Acting Quill Lock

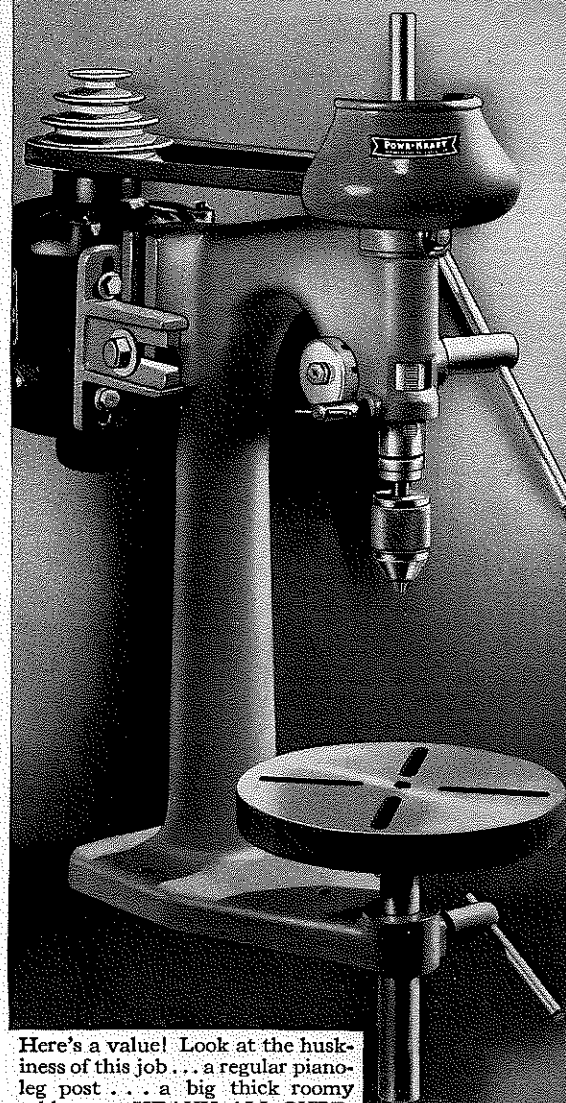
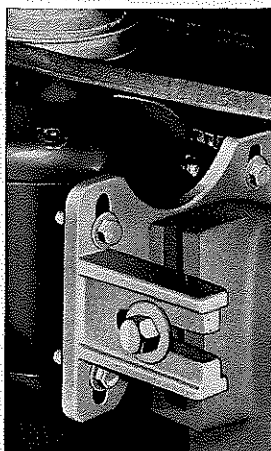


### ← Depth of Cut Easily Controlled

In the close-up at the left you will see that the depth of your cut is indicated on the quill by fractions of an inch. The spindle travels 3 1/2 inches up and down. Note the heavy chuck and positive lock for holding quill securely at desired position.

### Ten Speeds Available →

Can you get that on any other drill at this price? Look into it. The 4-speed pulley on the head together with the 4-step pulley on the motor give you four direct speeds. Then, by moving the motor up or down, (see adjustment at right) a total of 10 speeds is available. See, also, how easy it is to adjust the belt tension.



Here's a value! Look at the huskiness of this job... a regular piano-leg post... a big thick roomy table... **HEAVY ALL OVER.**

# Wards Powr-Kraft Shaper-Router-Carver DESIGNED ESPECIALLY FOR INDUSTRIAL USE

**\$79.95**  
Cash  
Price  
**\$7 down**

Built to do work in a busy shop and stay on the job year in, year out. And if you're a clever home craftsman and appreciate a fine tool... here is something to give even a professional worker a thrill.

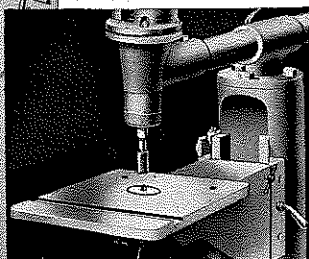
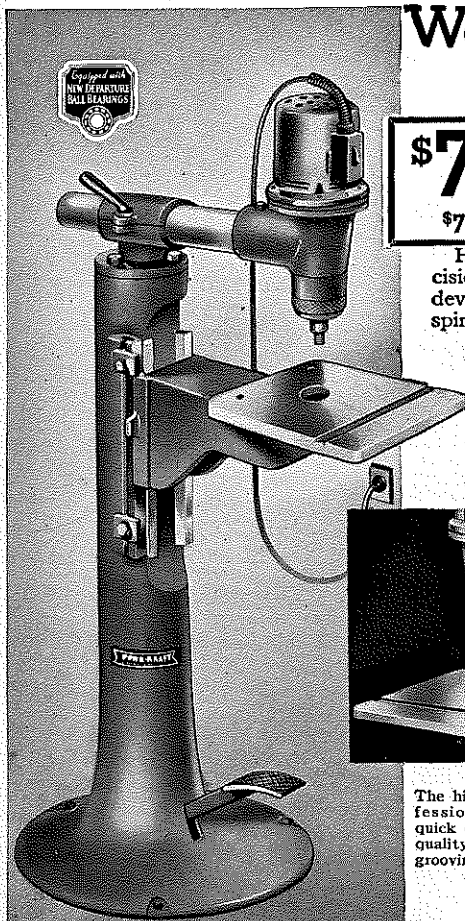
Here's full 175 lbs. of massive castings and precision machined parts! A powerful motor that develops just about one full horsepower turns the spindle at 18,000 R.P.M.! That means that a cutter with only 3 cutting edges makes 54,000 cuts per minute! It means that with this tool you can cut away the toughest of woods without even a suggestion of grabbing, chattering or gouging. No time wasted in shifting from routing to shaping or carving. Just a few simple levers... easy to get your hands on... a

quick turn here, there, and the work goes on.

The overall height is 4 feet 4 in. The head rotates both vertically and horizontally, and moves forward or backward 9 in. The frame is sturdy cast iron, as is the 11 by 14 in. table. Table has up and down movement of 9 inches on sturdy dovetail milled ways and moves up by the convenient foot lever. Limits are easily set. 9 in. from hole in table to column. Finished to match other Powr-Kraft tools in durable baked gray enamel. Universal motor is for 110 to 120 volt A.C. or D.C. Cutters are not included. Ship. wt. 210 lbs. *Shipped Separately from Factory in Chicago.* Estimated Freight Charges Page 2.

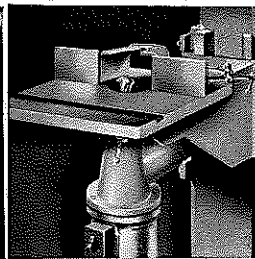
284 WM 734—Hi-Speed Woodworker... \$79.95

For Easy Payments see Page 2.



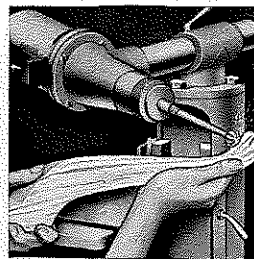
### ROUTING

The high speed of this professional machine means quick clean work of highest quality in routing, inlay and grooving.



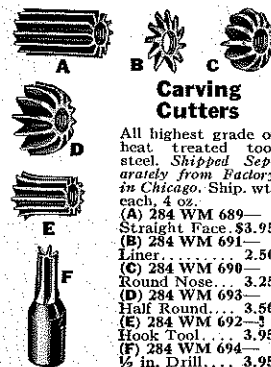
### SHAPING

For shaping the only accessories needed are cutters and shaper guard. (See Pages 16 and 18). Adaptors for 3/8 and 1/2 in. bore cutters are included.



### CARVING

The variety of carving work depends only on the skill of the operator. A cutter with 10 teeth makes 3000 cuts every second!

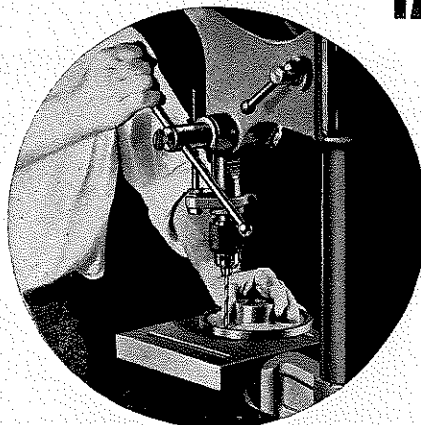


### Carving Cutters

All highest grade of heat treated tool steel. Shipped Separately from Factory in Chicago. Ship. wt. each, 4 oz.  
(A) 284 WM 689—Straight Face \$3.95  
(B) 284 WM 691—Liner 2.50  
(C) 284 WM 690—Round Nose... 3.25  
(D) 284 WM 693—Half Round... 3.50  
(E) 284 WM 692—3 Hook Tool... 3.95  
(F) 284 WM 694—1/2 in. Drill... 3.95

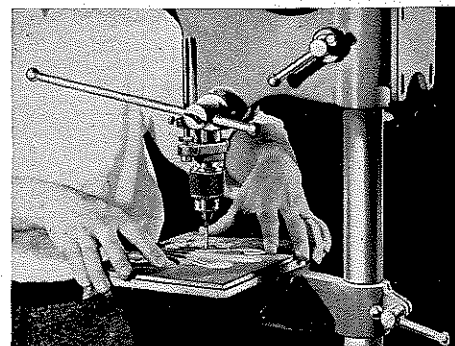


# Wards Power-Kraft IMPROVED TO DO



## Drilling

Precision! On any drilling job in metal or wood. Drills to center of 14 in. circle (7 in. from center of drill to column).



## Routing

So easy to do clean work when you have a choice of ten speeds and a positive depth stop that adjusts with micrometer accuracy. You can lower your cutter to the material and know to almost a hair just how much you are going to rout away.

## BENCH MODEL

**\$24<sup>95</sup>**  
Cash Price

LESS MOTOR  
Only \$3 Down  
\$4 A MONTH

**Equipped with Jacobs Key Chuck.** No finer chuck made. Capacity up to 1/2 inch—ample for any job!

**Quill.** Machined from solid bar steel ground to accurate limits. Graduated for depth drilling.

**Depth Stop.** Adjusts for repeat work with micrometer accuracy.

**Pulleys.** 4 step. 4 speeds directly, 6 more by moving motor up and down. Quick, convenient belt adjustment on motor mounting.

**Spindle.** Accurately ground and perfectly aligned. Runs on three oilless bearings. Heavy 5/8 in. diameter. Quiet.

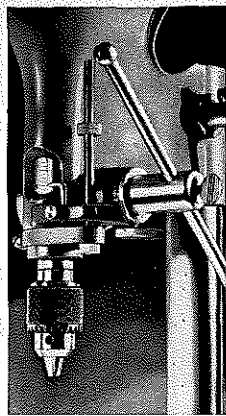
**Ball Thrust Bearing.** Greatly reduces power required to operate on any operation and not found on many drills.

## A Massive Tool—Powerful—Versatile

Almost a machine shop in itself . . . does four separate jobs—drills, mortises, shapes, routs—and can be made to do an endless lot of other jobs. Its limits of utility depend only on the skill and ingenuity of the operator.

Big, weighty and strong . . . there's nothing about it that the toughest of daily production work can impair. When a shop owner puts this Drill Press to work he's adding a real profit maker, a speedy husky tool that can take it year in and year out.

With greater capacity, greater power, the most modern of accessories and refinements it saves the shopman, garageman and home craftsman a lot of money. Wards Power-Kraft is designed to eliminate the need for extra spindles and other expensive gadgets. Our prices on the few accessories required are as moderate as on the drill press itself. Note that, without extra charge, we include the famous Jacobs chuck, standard on drilling machinery the world over.

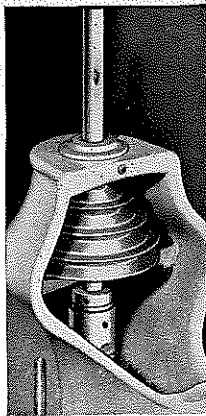


## Depth Gauge

Extremely important for clean accurate work is the depth gauge, especially for mortising or routing. It is graduated in 1/16ths of an inch.

A depth stop that adjusts with micrometer accuracy is provided. Position is quickly set by two nuts on the husky threaded stop rod.

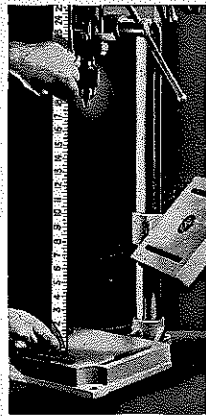
Jacobs 1/2 in. chuck provided as standard equipment.



## 10 Speeds

Here's a close-up of the top of the headstock. Note the extra bearing above the pulleys . . . eliminates strain on spindle. Two more oilless bearings are used on the spindle, besides a ball thrust-bearing.

The motor with its 4-step pulley is moved up and down by a convenient hand-screw, giving a total of 10 speeds from 625 to 5800 R.P.M.



## Big Capacity

Look at the capacity of Wards Power-Kraft Bench Drill . . . 17 inches from chuck to top of the base table! Plenty of room to handle a big variety of work, especially odd shaped material. The heavy 8 by 8 in. cast table tilts to 45 degrees in either direction; swings out of the way quickly and easily when desired.

## Converts Easily and Quickly Into SPINDLE SHAPER

Invert the head stock with motor; put the adjustable table over the head stock. Then you have a highly efficient vertical spindle shaper. A high quality of work is done with ease, speed and accuracy. The only accessories you need to buy are shaper guard, shaper cutters and adaptor.

For extreme accuracy the heavy Power-Kraft shaper fence has a micrometer adjustment. By the turn of a ball-crank one face of the fence may be adjusted forward or backward and rigidly locked. See complete description on Page 18.

84 WM 8851—Shaper Guard and Fence complete, same as supplied with Power-Kraft shaper. Ship. wt. 4 lbs. . . . \$2.35

84 WM 8852—Adaptor for 3/8 in. bore cutters. Ship. wt. 8 oz. . . . .50c

84 WM 8853—Adaptor for 1/2 in. bore cutters. Ship. wt. 8 oz. . . . .50c

For Shaper Cutters turn to Page 18.

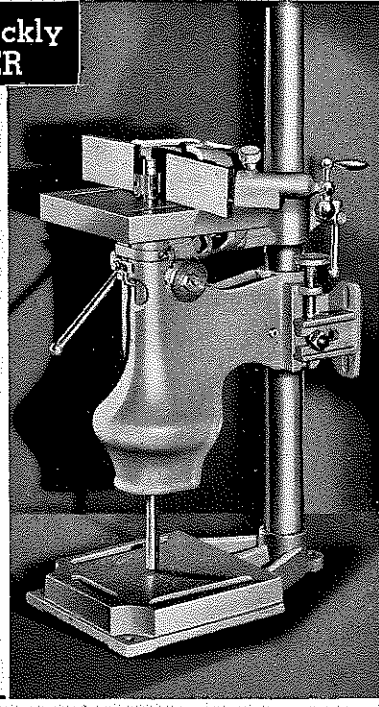


## Guard and Fence



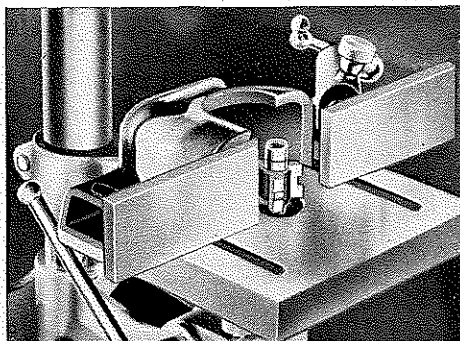
## Adaptor

To use floor model as shaper, you need also the Small Table as regularly supplied with table model. Ship. wt. 7 lbs. 84 WM 8857—Drill Press Table. \$1.95



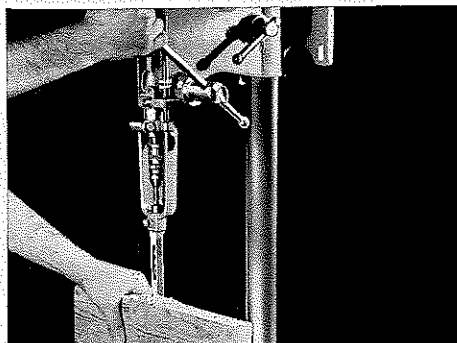
# Heavy Duty Drill Press

## ALL JOBS BETTER!



**Shaping**

Moldings and frames in a great variety of shapes are cut with ease. The shaper is made ready for work simply by inverting the head and attaching guard and adaptor. The sturdy fence is adjusted with micrometer accuracy.



**Mortising**

So easy to do on this new drill press. Remove regular chuck, attach mortising attachment with a hollow chisel and bit to the quill. Adjust your depth, throw on the motor and lower the chisel to the wood. A perfect mortise in a minute!

Here's what we mean by "heavy duty." Weight tells the story. The actual net uncrated weight (without motor) of the Bench Model is 68 lbs.; of the Floor Model 95 lbs. That enables you to visualize the massiveness, the sturdiness of the gray iron castings, and the steel columns.

These big models will drill to the center of a 14-inch circle with spindle movement  $4\frac{1}{2}$  inches up and down. Precision work is assured. Here is capacity, accuracy, steadiness and long life sufficient to satisfy any need on any job—no matter how exacting or how severe the service. Durable baked gray enamel finish.

### Bench Model

An outstanding Drill Press, not only for the wide range of operations possible but also for the very unusual value represented.

Overall height with spindle down is 36 inches. The ground steel column is full 2-inch diameter, ample support for motor, drill head and table in any operation. Adjustable table, 8 by 8 inches, with ground top. The head mechanism is fully enclosed with heavy gray iron casting.

184 WM 666—Complete with Powr-Kraft Heavy Duty  $\frac{1}{3}$  H.P. Motor No. 484 WM 9811 for 110-120 volt 60-cycle A.C. as shown on Page 23. Ship. wt. 120 lbs. .... \$34.70

184 WM 669—Less Motor, but with pulley and "V" belt, ready for motor. Ship. wt. 80 lbs. .... \$24.95

### Floor Model

Enormous capacity . . . maximum distance from table to bottom of chuck 42 inches! Overall height with spindle down, 68 inches!

Extraordinary strength and stability . . . diameter of ground steel column full 3 inches!

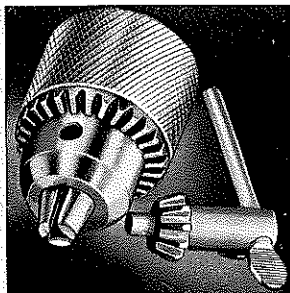
A heavy cast base 20 inches in diameter.

And this great floor-type press, is priced only \$5 higher than Wards bench model. Oversize table  $11\frac{1}{2}$  by  $12\frac{1}{2}$  in., ground and polished top. It is a heavy casting with trough for catching excess oil or cutting compound.

184 WM 670—Complete with Powr-Kraft Heavy Duty Motor No. 484 WM 9811 for 110-120 volt 60-cycle A.C. as shown on Page 23. Ship. wt. 160 lbs. .... \$39.70

184 WM 671—Less Motor, but with pulley and "V" belt, ready for motor. Ship. wt. 125 lbs. .... \$29.95

**For EASY PAYMENTS and Estimated Freight Charges See Page 2**



**The Jacobs Chuck**

Recently improved to provide more rapid action, greater grip and longer life. Capacity  $\frac{1}{16}$  to  $\frac{1}{2}$  in. Fits any spindle  $\frac{3}{8}$  in. diam., 16 threads per inch. Included without extra charge with drill presses above, but may also be ordered separately. Ship. wt. 2 lbs. 8 oz.

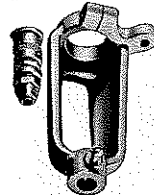
84 WM 8850—  
Jacobs chuck, .... \$4.95



**Hollow Chisels and Bits**

It is easy to make close-fitting mortise joints with a Hollow Chisel and Bit. The bit, revolving within the hollow chisel, travels slightly ahead of the chisel and removes the wood. The chisel trims the edges square. Powr-Kraft chisels are special heat treated steel . . . hold their edges over long use. Bits are finest tool steel (not ordinary carbon steel). Ship. wt.: chisels, each, 8 oz.; bits, each, 4 oz. State  $\frac{1}{4}$ ,  $\frac{3}{8}$  or  $\frac{1}{2}$  in. size.

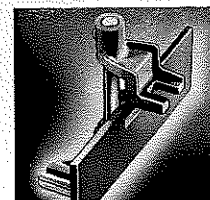
Article Number	Item	Each
84 WM 8860	Chisel only	\$1.19
84 WM 8861	Bit only	1.25



**Mortising Head and Chuck**

This is the chisel holder which attaches to the quill and holds the hollow chisel and bit pictured above. The set consists of a gray iron Hollow Chisel Holder, small diameter Chuck and necessary Collet. Everything you need to go to work. Fits only Wards bench and floor model drills listed on these two pages. Ship. wt. 4 lbs.

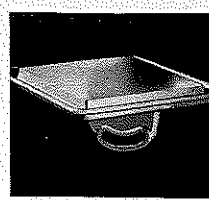
84 WM 8854—  
Mortising Head Set. .... \$1.95



**Hold Downs**

A big aid in mortising because they insure straight cutting and greatly simplify the mortising of long narrow stock. Ship. wt. 6 lbs.

84 WM 8855—  
Set ..... \$1.50

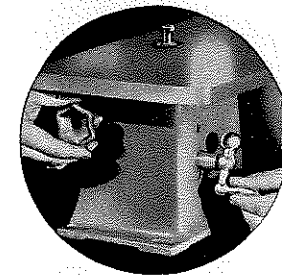
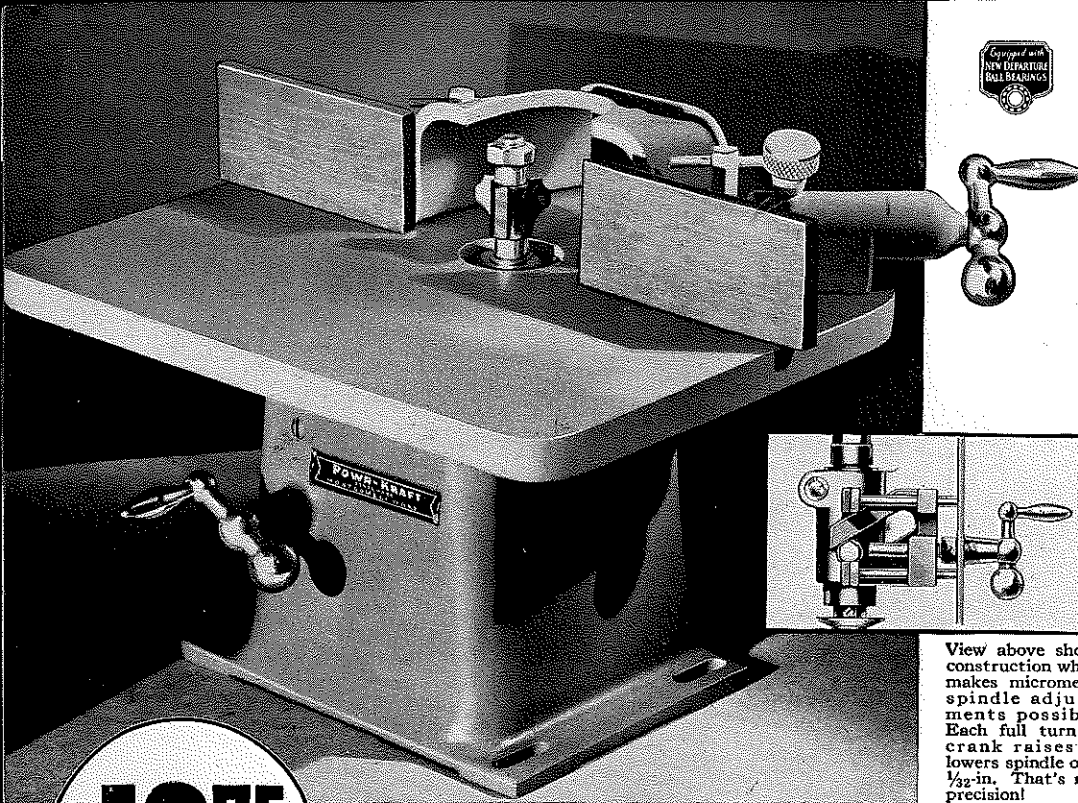


**Table**

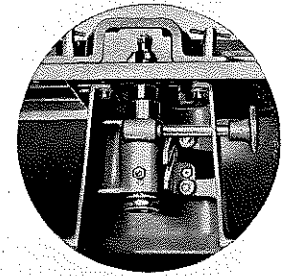
Heavy gray iron casting with machine ground top, same as on floor model above. Size  $11\frac{1}{2}$  by  $12\frac{1}{2}$  in. Will fit bench model drill press. Ship. wt. 20 lbs.

84 WM 8856 . . . \$4.95

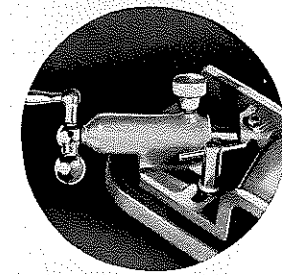




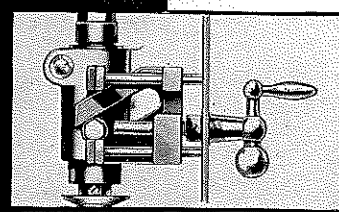
Note the ball-crank which gives micrometer adjustment for raising and lowering spindle. Positive lock wheel locks spindle in position.



Rear view showing the spindle assembly which is equipped with New Departure grease-sealed ball bearings. Note the husky construction throughout.



Ball-crank adjusts one side of fence—converts shaper to jointer. A full turn of crank moves fence arm only  $\frac{1}{24}$  inch—real micrometer accuracy.



View above shows construction which makes micrometer spindle adjustments possible. Each full turn of crank raises or lowers spindle only  $\frac{1}{32}$  in. That's real precision!

**\$13<sup>75</sup>**  
Less  
Cutters

# Wards *Power-Kraft* Heavy Duty Spindle Shaper

## A FINE PRECISION TOOL FOR HOME, SCHOOL OR SHOP

It's no trick at all—on this new and improved POWR-KRAFT Spindle Shaper—to change an ordinary project into a really professional job! With this tool anyone can turn out—easily and flawlessly—an endless variety of moldings, trims, edges and ends.

That's because Wards engineers went a *step further* in every detail of design. The new POWR-KRAFT has, for instance, more micrometer adjustments than any other shaper we've seen. Its table is machined smooth so that every piece of material rides across it with perfect accuracy. And, running at our recommended speed of 7500 R.P.M., it makes 22,500 cuts per minute—insuring the smoothest finish, free of ripples, roughness and cupping! And as for capacity, precision and strength—just look! This tool weighs 31 lbs. net—because it's all heavy, seasoned

gray iron castings. That's one reason for its smooth, quiet, vibrationless performance! A complete turn of the ball-crank raises or lowers the spindle only  $\frac{1}{32}$  in.—real precision! The front guide face has a micrometer adjustment for depth of cut; equally as delicate, yet positively locked just where you want it. And these fine adjustments are easy to make—all controlled by handy ball-cranks!

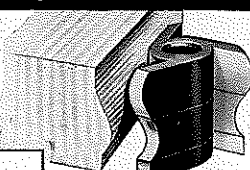
Vibrationless spindle is mounted on New Departure ball bearings—and takes cutters of  $\frac{3}{8}$  or  $\frac{1}{2}$ -in. bore. Change from one to the other in a minute! Heavy gray iron table is 11 by 14 in.,  $8\frac{1}{4}$  in. high. Finished in durable, baked-on gray enamel. Recommended speed 6000–7500 R.P.M. Furnished with 2-in. "V" pulley. Use  $\frac{1}{2}$ -H.P. motor for maximum efficiency. (See Page 23.)

484 WM 876—Less Cutters. Ship. wt. 41 lbs. .... \$13.75

## $\frac{5}{16}$ -INCH CUTTERS FOR ANY SHAPER

Made of tough Chrome Vanadium tool steel—carefully tempered, so that the keen edges of the cutting blades stay sharp much longer than ordinary cutters—tough enough to stand lots of re-sharpening. Cutters are matched to fit each other, and can be combined to make hundreds of different designs. Use on any Shaper or Drill Press taking  $\frac{1}{2}$ -in. bore cutters. "Thickness" below indicates width of cut made by cutter. Ship. wt. each 2 oz. Order by Article Number.

Your Choice  
**49<sup>c</sup>**  
Each



THICKNESS	Type	Thick- ness	Max. Diam.
4 WM 8870 State Type	A	.177 in.	.95 in.
	B	.264 in.	.95 in.
	C	.354 in.	.95 in.
	D	.442 in.	.95 in.

THICKNESS	Type	Thick- ness	Max. Diam.
84 WM 8873 State Type	A	.125 in.	.95 in.
	B	.156 in.	.95 in.
	C	.187 in.	.95 in.
	D	.250 in.	.95 in.

THICKNESS	Type	Thick- ness	Diam.
84 WM 8876 State Type	A	.282 in.	1.18 in.
	B	.344 in.	1.24 in.

THICKNESS	Type	Thick- ness	Max. Diam.
4 WM 8871 State Type	A	.221 in.	.994 in.
	B	.442 in.	1.03 in.

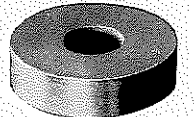
THICKNESS	Type	Thick- ness	Max. Diam.
84 WM 8874 State Type	A	.177 in.	1.02 in.
	B	.264 in.	1.06 in.

THICKNESS	Type	Thick- ness	Diam.
84 WM 8877 State Type	A	.194 in.	1.13 in.
	B	.260 in.	1.20 in.

THICKNESS	Type	Thick- ness	Max. Diam.
4 WM 8872 State Type	A	.303 in.	1.09 in.
	B	.388 in.	1.16 in.

THICKNESS	Type	Thick- ness	Diam.
84 WM 8875 State Type	A	.177 in.	1.02 in.
	B	.264 in.	1.06 in.
	C	.354 in.	1.09 in.
	D	.442 in.	1.13 in.

THICKNESS	Type	Thick- ness	Diam.
84 WM 8878 State Type	A	.177 in.	1.12 in.
	B	.282 in.	1.21 in.

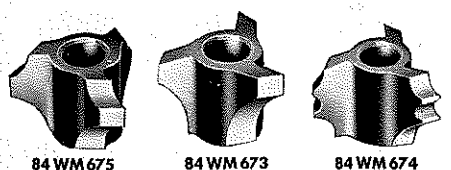
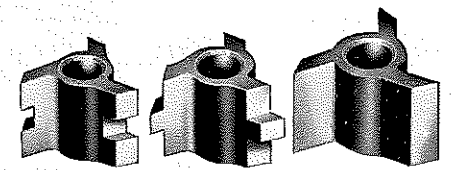


**Depth Washers**  
Assorted diameters to regulate depth of cut. Ship. wt. 8 oz.  
84WM8880  
Set of 6.....50c

## $\frac{1}{2}$ -inch Bore Cutters

Same high quality construction as cutters at left. Use on any shaper fitted for  $\frac{1}{2}$ -in. bore cutters. All cutters listed below have  $1\frac{1}{4}$ -in. maximum diameter and make cut 1 in. wide. Shipping weight each 10 ounces. Order by Article Number.

Your Choice  
**\$1<sup>00</sup>**  
Each



**Set of 24 Cutters—Save \$2.42**  
With this complete set, which includes all of the cutters listed above, you can turn out an almost unlimited variety of designs. You save \$2.42 by buying the complete set. Set of 6 depth washers included. In wood box.  
84 WM 8882—Ship. wt. 2 lbs. 8 oz. Complete set.....\$9.95

**Set of 7 Cutters**  
Same quality Chrome Vanadium tool steel as above. Set of 7 most frequently used cutters to provide fifty to sixty designs. Set of 6 depth washers included.  
84 WM 8881 Ship. wt. 1 lb.....\$3.50

# Wards Powr-Kraft ELECTRIC GRINDERS

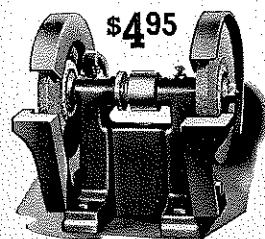
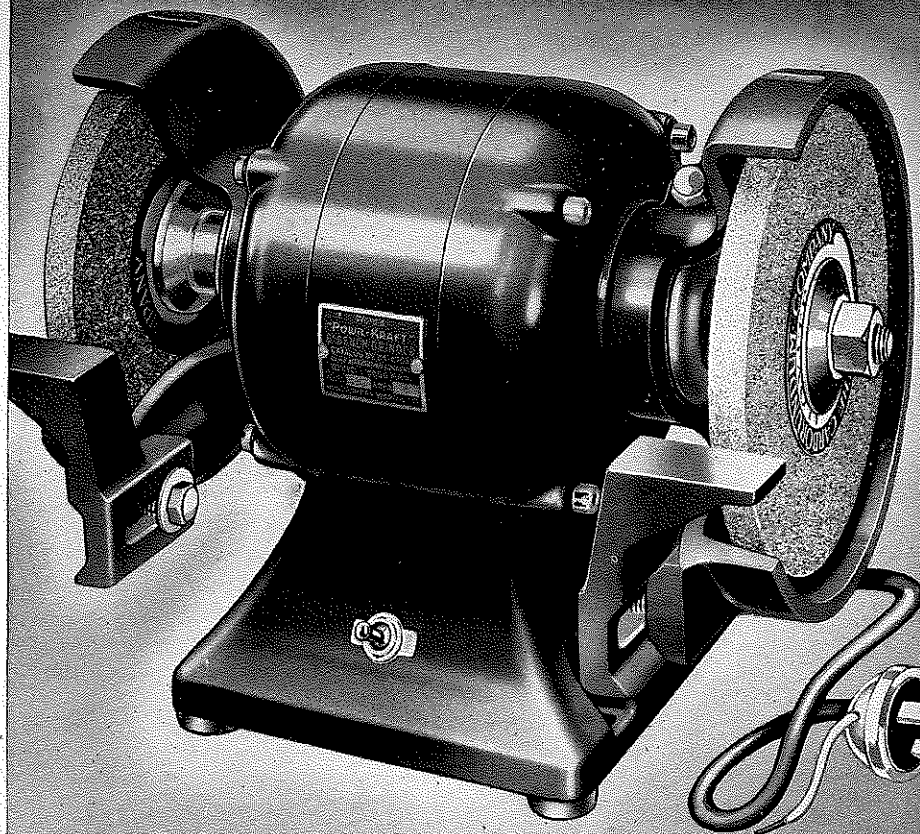
Fully Enclosed Dust-proof Motor 1/3 Horsepower

A Grinder with plenty of power and weight for heavy continuous service in the garage or workshop. Handles all types of bench grinding, tool sharpening, wire wheel brushing and rag buffing. The big, husky, fully enclosed motor is sealed against grit, grindings and dust—which means longer life and trouble-free service. Won't overheat—develops full rated horse power. Rotating parts are precision balanced for vibrationless performance whether idling or under load. Heavy, oil-packed bronze bearings assure cooler, smoother operation and lower current consumption.

Adjustable tool rests are mounted on one-piece, adjustable wheel guards. Furnished complete with motor, toggle switch in base, two Carborundum vitrified grinding wheels—one coarse, one fine—and three-conductor cord with plug. For 110 to 120-volt, 60-cycle A.C. only.

Article No.	H.P.	R.P.M.	Size Wheels	Ship. Wt.	Each
484 WM 6703	1/2	3600	6 by 1 1/2 in.	49 lbs.	\$19.45
484 WM 6704	1/2	1800	8 by 3/4 in.	64 lbs.	22.45

**\$19.45**



**\$4.95**

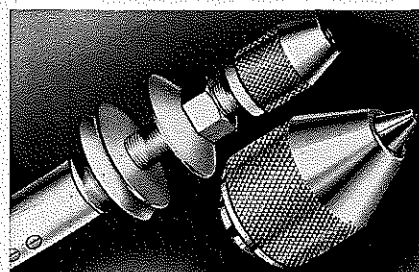
## Wards Powr-Kraft Bench Grinder

- Oilless Bronze Bearings
- 2 Six-In. Grinding Wheels

A heavy duty tool for production work. 6 by 5-in. base. Adjustable tool rests and guards. Shaft 8 inches by 1/2 inch.

Diam. pulley 1 3/4 in. Face 1 3/4 in., grooved for "V," round or flat belt. 2 carborundum wheels 1/2 in. by 6 in.; 1 fine, 1 coarse grain. Shipping weight 20 pounds.

484 WM 6723..... **\$4.95**



## Motor Arbors

Complete with chucks described at right. Flanges hold wheels with 1/2-in. holes. For motors with 1/2-in. shafts. (Ship. wts. 1 lb. 8 oz. and 1 lb. 4 oz.)

84 WM 9976—1/2-inch capacity..... **\$1.00**

84 WM 9977—1/4-inch capacity..... **75c**

## Three-Jaw Chucks

Heat-treated chucks, threaded for 1/2-in. spindle having 24 threads per inch. 84WM8890—Statesize.

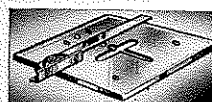
Size	Ship. Wt.	Each
1/2 in.	10 oz.	50c
3/4 in.	6 oz.	25c



Polishing  
Head  
**98c**

Take-up adjustment on bearings. Equipped with 3-jaw 1/4-in. chuck, 2-speed "V" pulley, 1/2-in. shaft with wheel holder on each end.

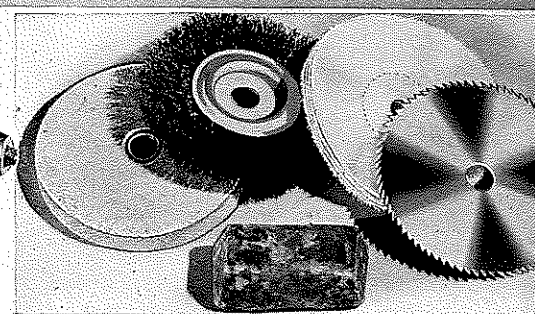
Holds wheels up to 6 by 1/2-in. Shipping weight 6 pounds. 84 WM 9980 **98c** Complete..... **98c**



## Saw Table

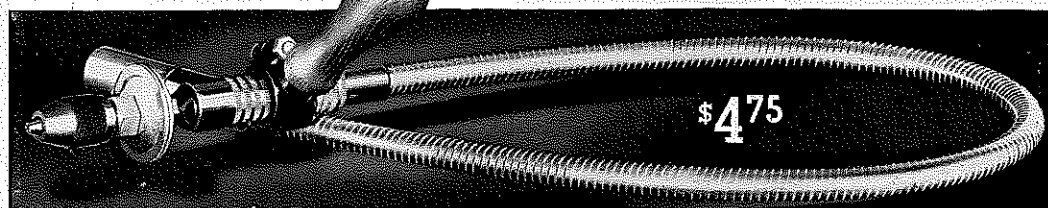
A handy attachment for polishing head listed at left. Table is 8 by 8 in. Stamped from heavy steel. Miter gauge for sawing angles. Ship. wt. 3 lbs.

84 WM 9981..... **50c**



## Handy Utility Kit

Your shop isn't complete without one of these handy outfits. You'll find it useful for grinding, polishing, buffing, sawing, etc. Pieces fit polishing heads, motor arbor or flexible shaft. Set consists of saw, grinding wheel, scratch wheel, cloth buffer—all 4 inches in diameter with 1/2-in. hole—and cake of polishing compound. Every piece is American made of high quality materials—not cheap imported merchandise. 84 WM 9982—Shipping weight 3 pounds..... **\$1.25**

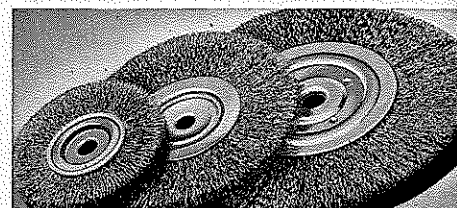


**\$4.75**

## Flexible Shaft—Couples to Motor or Line Shaft

Transmits power to those "hard-to-get-at" places—it can be turned around corners and operated at any angle. Handy for drilling, sanding, grinding and polishing jobs. Fits any 1/2-in. shaft. Handy grip handle makes it easy to hold tool in proper position. No exposed moving parts at motor end.

Note the fine construction throughout! High quality, specially tempered spring steel core and polished case. Double row of ball bearings at each end. Fitted with 1/4-in., 3-jaw chuck and grinding wheel arbor. Length over all 42 in. 584 WM 880—Ship. wt. 6 lbs..... **\$4.75**



## Steel Wire Scratch Wheels

84 WM 6744—Fine				84 WM 6743—Coarse			
Diam.	Bore	Ship. Wt.	Each	Diam.	Bore	Ship. Wt.	Each
4 in.	1/2 in.	6 oz.	39c	4 in.	1/2 in.	6 oz.	29c
6 in.	1/2 in.	10 oz.	45c	6 in.	1/2 in.	10 oz.	39c
8 in.	3/4 in.	1 lb. 4 oz.	49c	8 in.	3/4 in.	1 lb. 4 oz.	49c



## Soft Sheepskin Buffer

Excellent for polishing automobile bodies, metals, etc. Sheepskin jacket slips over sanding disc and rubber pad shown on Page 21. Fastens securely with draw string attached.

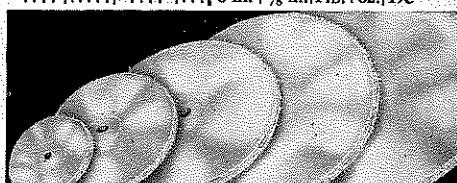
84 WM 711—Ship. wt. 3 oz..... **75c**



## Vitrified Grinding Wheels

Use Standard Grit for general grinding—Fine Grit for knives, sharp-edged tools, etc. Face and sides dressed. Ship. wts. 1 to 3 lbs. 4 oz. State diameter, thickness and size shaft hole.

584 WM 8500—Standard Grit						584 WM 8501—Fine Grit					
Diameter, In.	4	4	5	5	6	Diameter, In.	4	4	5	5	6
Thickness, In.	1	1	1	1	1	Thickness, In.	1	1	1	1	1
Each.....	45c	65c	59c	85c	75c	Each.....	45c	65c	59c	85c	75c



## Cloth Buffing Wheels

Consist of 18 layers of bleached muslin, securely sewed together. 1/2-inch hole.

84 WM 6742—State diameter.					
Diam. In.	4	6	8	10	12
Ship. wt. oz.	3	4	5	6	9
Each.....	12c	19c	29c	39c	49c





### White Metal "V" Pulleys

So well balanced and so well built with accurate flanges and hub, these pulleys run true at all speeds—which means smoother, quieter running and greater efficiency. Light weight, yet their high tensile strength makes them exceptionally durable and long-wearing. Of fine quality die cast white metal—designed to take either  $\frac{3}{8}$  or  $\frac{1}{2}$ -in. "V" belts. Solid disc type—no spokes to catch clothing.

**16<sup>c</sup>**  
Ea.  
**1½-In.**

84 WM 9968—State diam. and bore.

Diam.	Bore, In.	Ship. Wt.	Price
1¼-in.	½	4 oz.	16c
1½-in.	½, ⅝	4 oz.	16c
1¾-in.	½, ⅝	5 oz.	19c
2-in.	½, ⅝	6 oz.	19c
2½-in.	½, ⅝, ¾	8 oz.	20c
2½-in.	½, ⅝, ¾	8 oz.	20c
3-in.	½, ⅝, ¾	10 oz.	25c
4-in.	½, ⅝, ¾	12 oz.	30c
5-in.	½, ⅝, ¾	1 lb.	45c
6½-in.	½, ⅝, ¾	1 lb. 12 oz.	69c
8-in.	½, ⅝, ¾	2 lbs. 4 oz.	\$1.00
10-in.	½, ⅝, ¾, 1	4 lbs.	1.19
12-in.	½, ⅝, ¾, 1	5 lbs.	1.39

### Pressed Steel Pulleys

Accurately balanced to run true at all speeds. Take either  $\frac{1}{2}$  or  $\frac{3}{8}$ -in. "V" belts. Choice of  $\frac{1}{2}$ ,  $\frac{3}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{16}$ , 1,  $\frac{1}{16}$  or  $\frac{1}{32}$  in. bore. State dia. and bore.

Shipped from Factory near Cincinnati, Ohio.

284 WM 9999

Diam. In. . . . . 15 18  
Ship. wt. lbs. . . . . 9 12  
Each . . . . . \$2.89 \$3.69



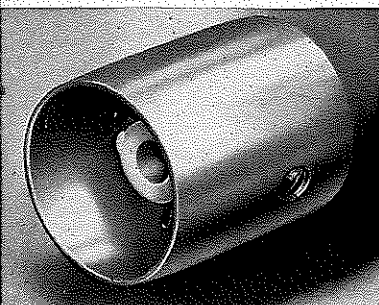
**49<sup>c</sup>**  
4-Inch

### 4-Step "V" Pulleys

Change belt from one step to another and you change the speed of your machine! Wards 4-step die cast white metal "V" Pulleys are scientifically designed and carefully balanced to run true at all speeds—smoother performance and longer life! Take either  $\frac{3}{8}$  or  $\frac{1}{2}$ -in. "V" belts. Choice of  $\frac{1}{2}$ ,  $\frac{3}{8}$  or  $\frac{1}{4}$ -in. bore. State bore.

84 WM 9974—4-inch maximum diameter. Ship. wt. 3 lbs. . . . . 49c

84 WM 9975—5-inch maximum diameter. Ship. wt. 4 lbs. . . . . 59c

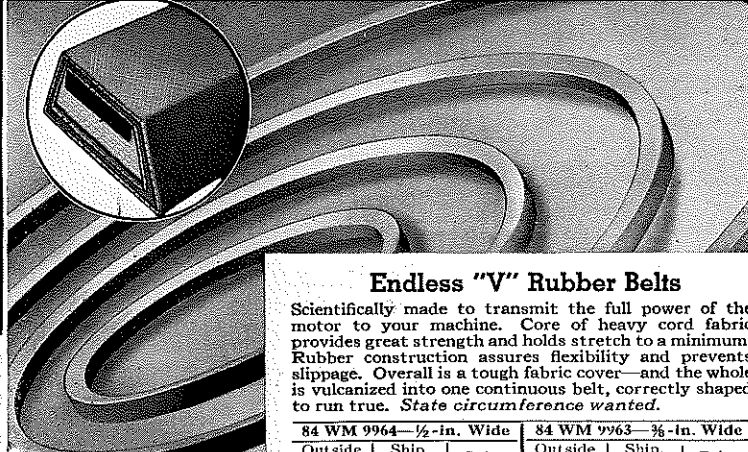


### Flat Face Metal Pulleys

Scientifically designed die-cast white metal pulleys, accurately balanced to run true at all speeds. High tensile strength. Ship. wts. 8 oz. to 1 lb. 8 oz.

84 WM 9969—State size and bore.

Size, In.	Bore, In.	Each
1½ by 1¼	½, ⅝	23c
2 by 2	½, ⅝, ¾	25c
2½ by 2½	½, ⅝, ¾	29c
3 by 3	½, ⅝, ¾	49c



### Endless "V" Rubber Belts

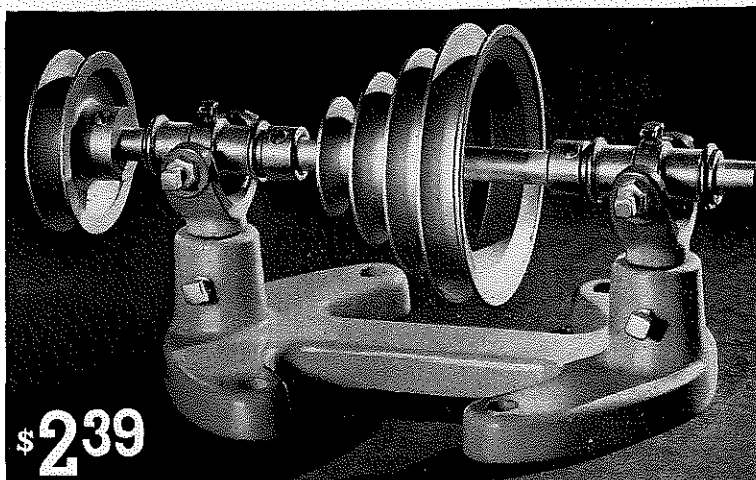
Scientifically made to transmit the full power of the motor to your machine. Core of heavy cord fabric provides great strength and holds stretch to a minimum. Rubber construction assures flexibility and prevents slippage. Overall is a tough fabric cover—and the whole is vulcanized into one continuous belt, correctly shaped to run true. State circumference wanted.

84 WM 9964—½-in. Wide			84 WM 9963—¾-in. Wide		
Outside Circum. In.	Ship. Wt. Oz.	Price Each	Outside Circum. In.	Ship. Wt. Oz.	Price Each
28	4	29c	24	3	27c
33	4	31c	31	4	30c
37	4	39c	34	4	31c
39	4	42c	43	5	42c
42	5	42c	60	5	57c
44	5	44c			
48	6	45c			
56	6	55c			
62	8	59c			
77	8	79c			
92	10	95c			



### Round Leather Belting

Flexible—made for minimum stretch. Ship. wt. 1 lb. 2 oz.  
84 WM 9973—State size.  
Size, In. . . . . ¾ 1 1½ 2 3  
Per Foot . . . . . 10c 7c 5c 3c



### Convenient Jack Shaft for Quick Speed Changes

For increasing or reducing speeds. Especially suitable for increasing speeds of high speed tools such as Shapers, Drill Presses, etc. Equally useful for machines where extra slow speed is desirable. Rigid cast iron frame. Ground shaft runs in bronze bush bearings. Die cast pulleys. One 2½-in. regular and one 4-in., 4-step pulley taking  $\frac{3}{8}$  or  $\frac{1}{2}$ -in. V-belt. Adjustable up and down.

84 WM 9988—Ship. wt. 12 lbs. . . . . \$2.39



### Ground Steel Shafting

Not ordinary cold rolled steel, but shafting that is accurately ground and held to 1/1000-inch. This means longer life for the bearings and makes shaft more resistant to rusting.

84 WM 9985—½ by 24 in. Ship. wt. 2 lbs. 8 oz. . . . . 23c

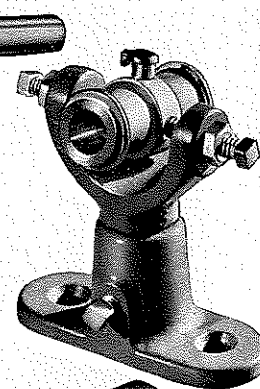
84 WM 9986—¾ by 48 in. Ship. wt. 7 lbs. . . . . 89c

### Self-Aligning Hangers

Note the sturdy construction. Heavy bronze bushings are inserted in steel turnings and there's plenty of room for oil. State bore.

84 WM 9987—½-in. bore. Ship. wt. 2 lbs. . . . . 89c

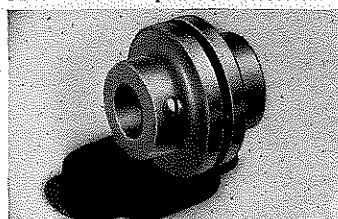
¾-in. bore. Ship. wt. 2 lbs. 8 oz. . . . . \$1.19



### 2-Step "V" Pulley

Perfectly balanced to run true at all speeds. Takes  $\frac{3}{8}$  or  $\frac{1}{2}$ -in. belt. Die cast white metal with high tensile strength. Diameters are 2 and 2½ in. State ½ or ¾-in. bore.

84 WM 9972—Ship. wt. 6 oz. . . . . 25c



### Flexible Couplings

Die-cast metal. Rubber cushions for flexibility. Ship. wt. 7 and 10 oz.

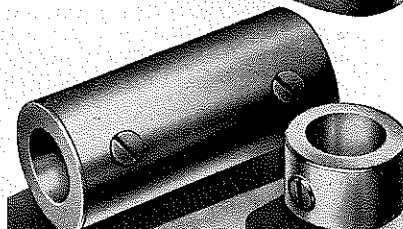
84 WM 9970—½-inch bore. . . . . 25c

84 WM 9971—¾-inch bore. . . . . 37c

### CONVENIENT TABLE OF SPEEDS

This handy table shows at a glance the approximate speed of the pulley on any machine, with different pulley sizes on the motor shaft. These are correct when belt is at proper tension, and are based on a motor speed of 1725 R.P.M.

Size, In. Motor Pulley	Size, In. of Pulley on Machines															
	1¼	1½	1¾	2	2½	3	4	5	6½	8	10	12	15	18		
1¼	1725	1435	1230	1075	950	860	715	540	430	330	265	215	175	140	115	
1½	2065	1725	1475	1290	1140	1030	860	645	515	395	320	265	215	170	140	
1¾	2400	2000	1725	1500	1340	1200	1000	750	600	460	375	315	250	200	165	
2	2775	2290	1970	1725	1530	1375	1145	860	685	530	430	345	285	230	190	
2½	3100	2580	2200	1930	1725	1550	1290	965	775	595	485	385	320	255	215	
3	3450	2870	2460	2150	1900	1725	1435	1075	860	660	540	430	355	285	240	
4	4140	3450	2950	2580	2290	2070	1725	1290	1070	800	615	515	430	345	285	
5	5500	4570	3940	3450	3060	2775	2295	1725	1375	1060	860	690	570	460	380	
6	6850	5750	4920	4300	3825	3450	2865	2150	1725	1320	1075	860	715	575	475	
6½	8950	7475	6400	5590	4975	4480	3730	2790	2240	1725	1400	1120	930	745	620	
8	9200	7870	6900	6125	5520	5000	4600	3450	2750	2120	1725	1375	1140	915	765	
10	9850	8620	7670	6900	6250	5750	5350	4300	3450	2650	2150	1725	1430	1140	950	
12	10200	9000	8000	7200	6500	6000	5600	4600	3750	2950	2350	1950	1650	1350	1150	
15	10600	9400	8400	7600	6900	6400	6000	5100	4100	3300	2700	2250	1900	1550	1300	
18	11000	9800	8800	8000	7300	6800	6400	5500	4500	3700	3100	2600	2200	1850	1600	



### Shaft Couplings and Collars

84 WM 9983—Rigid Couplings.

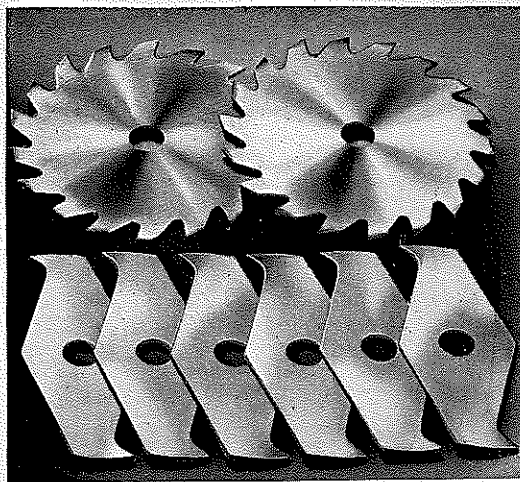
½-in. bore. Ship. wt. 3 oz. . . . . 19c

¾-in. bore. Ship. wt. 6 oz. . . . . 29c

84 WM 9984—Shaft Collars.

½-in. bore. Ship. wt. 2 oz. . . . . 9c

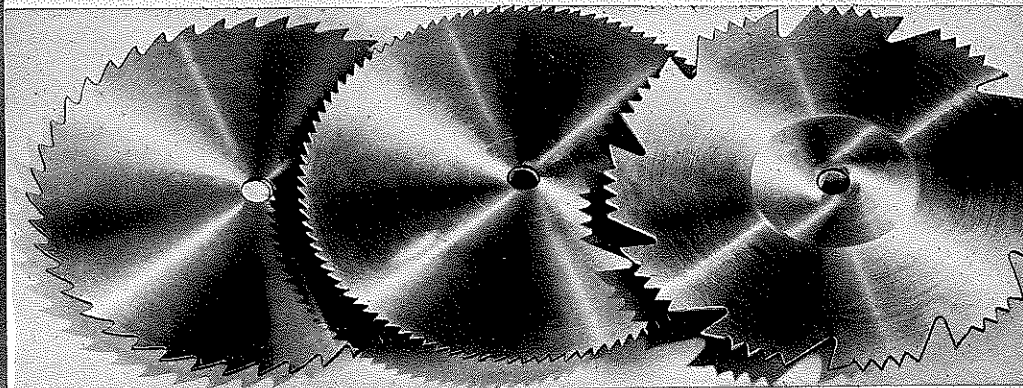
¾-in. bore. Ship. wt. 3 oz. . . . . 15c



### Alloy Steel Dado Saws

For grooving, rabbeting, mortising and tenoning. Use on any bench saw having removable throat on table. Complete saw consists of two outside blades and six inside chippers—all  $\frac{1}{16}$  in. thick except 5-in. blades, which are  $\frac{1}{32}$  in. State diameter. (Available only in sizes listed).

Article Number	Ship. Wt.	4-in. diam. $\frac{1}{2}$ -in. bore	5-in. diam. $\frac{5}{8}$ -in. bore
84 WM 785—Complete.....	1 lb.	\$2.25	\$3.50
84 WM 716—Blade only.....	6 oz.	69c	95c
84 WM 715—Chipper only.....	2 oz.	22c	29c



### Combination Rip and Cross-cut Saw 89<sup>c</sup> 6 In. Circular Cross-cut Saw 89<sup>c</sup> 6 In.

We believe there are no better saws for fast, clean, smooth cutting. Finest quality crucible alloy steel, with a cutting edge that stays sharp! Correctly tempered, hand filed, hammered and set for real balance and trueness—no binding or buckling. State diameter wanted.

84 WM 284—Combination Rip and Cross-Cut Saw.  
84 WM 281—Circular Cross-Cut Saw.

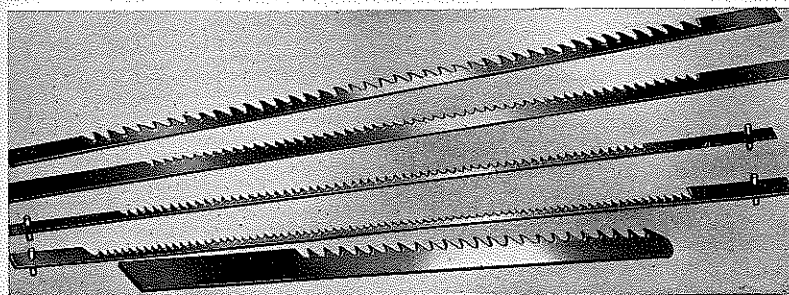
Diam. In.	Gauge	Size Hole	Ship. Wt.	Each
6	18	$\frac{1}{2}$ in.	10 oz.	89c
7	18	$\frac{1}{2}$ in.	12 oz.	\$1.09
8	18	$\frac{5}{8}$ in.	1 lb.	1.35

### Hollow Ground Miter Saws \$225 6 In.

This type of saw cuts more slowly than saws at left, but leaves a smoother, finer edge. Finest quality crucible alloy steel, correctly tempered and balanced.

84 WM 283—State diameter.

Diam. In.	Gauge	Size Hole	Ship. Wt.	Each
6	16-19	$\frac{1}{2}$ in.	10 oz.	\$2.25
7	15-18	$\frac{1}{2}$ in.	12 oz.	2.55
8	15-18	$\frac{5}{8}$ in.	1 lb.	2.95



### First Quality Jig Saw Blades

All blades  $\frac{5}{16}$  inches long, unless otherwise specified. Ship. wt. pkg. 4 oz.

#### PLAIN END BLADES

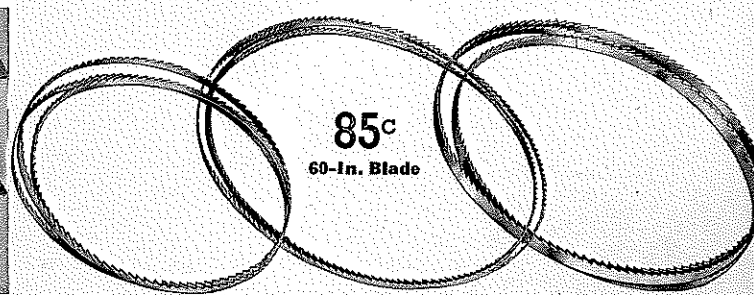
84 WM 8784—.020 in. thick,  $\frac{1}{8}$  in. wide. State 10 or 15 teeth per inch. Package of 6.....15c  
84 WM 8783—.010 in. thick, .040 in. wide. Package of 12.....25c  
84 WM 8785—Assorted Sizes. Package of 12.....27c

#### PIN END BLADES

84 WM 8774—.010 inches thick, .040 in. wide. 20 teeth per inch. Package of 12.....29c  
84 WM 8775—Assorted Sizes. Package of 12.....29c

#### SABER BLADES

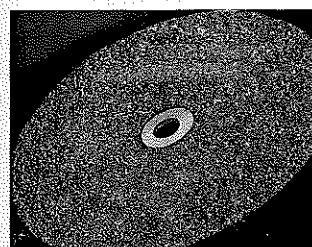
84 WM 8781— $\frac{1}{2}$  in. wide,  $4\frac{1}{2}$  in. long. Package of 3.....19c  
84 WM 8780—Assorted sizes. Package of 12.....39c



### First Quality Steel Band Saw Blades

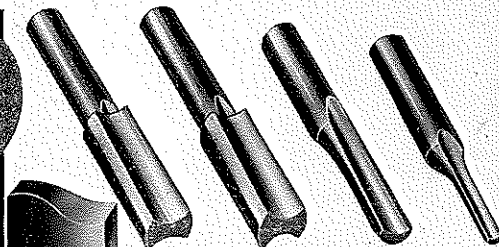
You know these blades will cut straight and true, because they're carefully made of the finest alloy steel. Correctly tempered and properly set for fast, smooth cutting in all kinds of wood. Tough and strong, yet flexible enough to bend easily around wheels of saw. Widths  $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$  and  $\frac{5}{16}$  in.

84 WM 746—State length and width wanted  
60-inch blade for most 9-inch saws. Ship. wt. each 5 oz.....85c  
78-inch blade for most 12-inch saws. Ship. wt. each 5 oz.....95c  
84 WM 757—Metal Cutting Blades  
For cutting soft metals, such as brass, aluminum, copper, etc. Blades are 78 in. long,  $\frac{3}{8}$  in. wide. Ship. wt. each 5 oz.....\$1.00



### Abrasive Disc

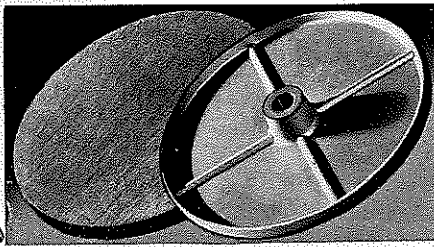
A good abrasive disc is a handy accessory for any shop. This one is rubber bonded for fast, clean cutting of metals, stone, brick, tile, etc. It's 8 inches in diameter,  $\frac{3}{32}$  in. thick, and has a  $\frac{5}{8}$ -in. hole. Run at 5000-6000 R.P.M. Ship. wt. 3 lbs.  
84 WM 8901—Each.....95c



### Routing and Mortising Cutters

Finest quality high speed steel cutters that bite right into the toughest kind of wood. Correctly tempered to hold their keen edges. Use them with drill presses and wood carvers for routing and mortising operations. Ship. wt. each 4 oz.  
84 WM 641—State size wanted.

Size, In.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Each.....	62c	62c	69c	75c	89c



### Rubber Disc

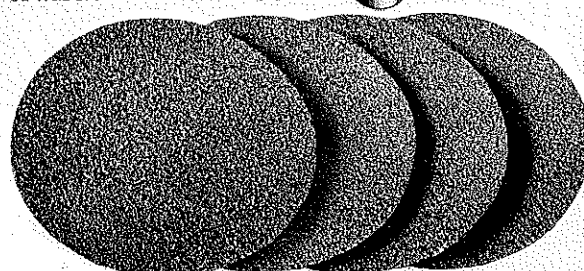
Use this tough gray Sponge Rubber Pad between sanding disc (shown at right) and sheepskin buffer (on Page 19). 6-in. diam.,  $\frac{3}{8}$ -in. thick. Ship. wt. 4 oz.  
84 WM 718—Each 25c

### Sanding Disc

Fine quality die-cast metal, carefully machined and balanced. Diam. 6 in. State whether  $\frac{1}{2}$ -in. threaded, or  $\frac{1}{2}$  or  $\frac{5}{8}$  in. unthreaded bore is wanted. Ship. wt. each 7 oz.  
84 WM 717—Each 50c

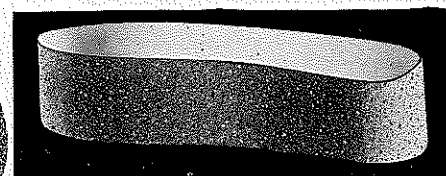
### Planer Knives

Made of finest quality tempered high speed steel—that's why they stay sharp much longer than ordinary carbon steel knives. For any jointer taking 4-in. blades with same cross-section as shown above. Ship. wt. per set 1 lb.  
84 WM 8900—Set of 3 \$1.95



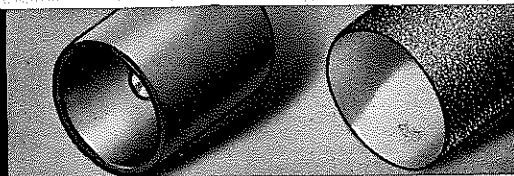
### Quality Sanding Disc Sheets

Use these discs of Sandpaper to give your work a smooth, flawless finish. Each disc is 6 inches in diameter, for use with metal sanding disc (shown above). Set of six consists of two each of coarse, medium and fine. Order a set today! Ship. wt. per set 4 oz.  
84 WM 719—Per Pkg. of 6.....25c



### Endless Sanding Belts

Keep an assortment of these Sanding Belts on hand at all times—you'll use them often to give your work a smooth finish. Designed for use on Wards POWER-KRAFT Adjustable Belt Sander (No. 484 WM 877, shown on Page 10), or on any other sander using 3 by 30-inch sanding belts. Sturdily made with tough fabric back—which means that they will last much longer than ordinary belts. State whether Coarse, Medium or Fine is wanted. Ship. wt. each 8 oz.  
84 WM 780—Size 3 by 30 inches.....35c



### Sanding Drum

This die-cast metal Sanding Drum attaches easily and quickly to flexible shaft, polishing head, etc. Makes a convenient sander for your shop. Diameter,  $2\frac{1}{2}$  in. Width, 3 in. Complete with rubber sleeve as shown. Ship. wt. 8 oz.  
84 WM 704.....75c

### Drum Sandpaper

Excellent for smoothing rounded edges and surfaces. This heavy sanding band fits over the metal drum at left or any of same size. Use with flexible shaft, polishing head, etc. State Coarse, Medium or Fine. Ship. wt. 2 oz.  
84 WM 703—Each 10c



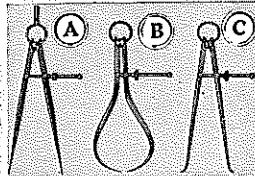


**Master Quality Hammer**  
**98c**

Wards finest. Tempered Vanadium steel!—the hardest, toughest steel made! Octagon neck, sure grip claws, tapered corrugated eye. Selected, straight grain, second growth hickory handle securely clinched with two corrugated wedges—head cannot work loose. Ship. wt. 2 lbs.  
84 WM 1511—Size 1½; 16-oz. head. 98c

**A—Dividers**  
**B—Outside Calipers**  
**C—Inside Calipers**

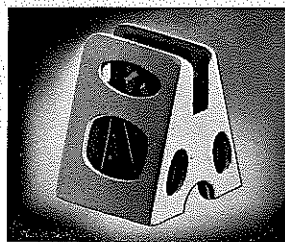
Tested for accuracy. Sold under nationally-known manufacturer's name for much more. Legs are made of crucible steel, well shaped and finely tempered. *State size.*



Size	Ship. Wt.	84 WM 2614 Divider	84 WM 2613 Outside Caliper	84 WM 2612 Inside Caliper
4-in.	5 oz.	59c	59c	59c
6-in.	6 oz.	69c	69c	69c
8-in.	8 oz.	79c	79c	79c

**Combination Square**

Die-cast head, black enameled. With level glass and scriber. Steel scale, graduated to 16ths on one side and 32nds on the other. Length 12 in. Ship. wt. 1 lb. 4 oz.  
84 WM 2529—Each. . . . .85c  
84 WM 2530—12-in. scale only. Ship. wt. 8 oz. Each. . . . .65c

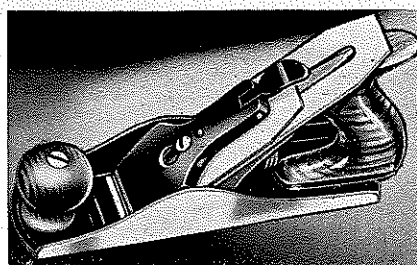


**Make Your Own Saw Horses, Benches, etc. with Wards Metal Joints**

Use them for saw horses, benches, scaffolding, understaging or supports—there's dozens of places where they will save you time and lumber. Just cut your lumber square, the desired lengths and insert in Wards Metal Joints and your job is done. No beveling, jointing, or nailing necessary. Lock-tight grippers prevent side sway, spreading or dis-jointing. No braces needed.

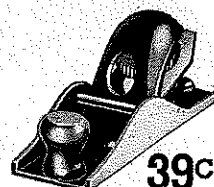
Easy to set up—easy to take down. Quickly and easily interchangeable with varying lengths of lumber to make any height or span. Made of malleable iron—will last a lifetime. Ship. wts. 5 and 11 lbs.  
84 WM 8892—Size 1. For 1 by 3-in. lumber. Set of 4. \$1.79  
84 WM 8893—Size 2. For 2 by 4-in. lumber. Set of 4. 2.98

\$1.79  
Set  
Size 1



**Wards Eclipse Quality Plane**

Every woodworker needs a good Plane. This one has a 1¼-in. adjustable tool steel cutter—correctly tempered and ground. Sides and bottom are ground smooth. Hardwood handle and knob. Depth and leveling adjustments. Ship. wt. 4 lbs.  
84 WM 460—Smooth style 3; 9½ in. long. . . . .89c



**Style 110 Plane**

A strong, husky Block Plane that comes in handy around the work shop. You'll like the way it handles. 1½-in. adjustable steel cutter. Ground surfaces. Sides and bottom smooth and polished. Length 7 in. Ship. wt. 2 lbs.  
84 WM 545. . . . .39c



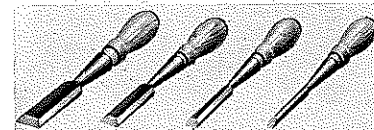
**Adjustable Marking Gauges**

Save time, are accurate and especially suitable for marking long material. Marked to 16ths. Ship. wt. ca. 8 oz., 6 oz.  
84 WM 2325—Boxwood with brass screw. 8¼ in. long. . . . .69c  
84 WM 2324—Beechwood with wood screw. 8½ in. long. . . . .15c

**Folding Rules**  
**15c**



Yellow. Marked to 16ths. Two sides.  
84 WM 1840—State length. Length, ft. . . . .4 5 6 8 Ship. wt. oz. . . . .5 6 7 8 Each. . . . .15c 18c 20c 29c  
84 WM 1841—6-ft. White. Marked to 16ths. Ship. wt. 7 oz. . . . .23c



**Special Chisel Set**

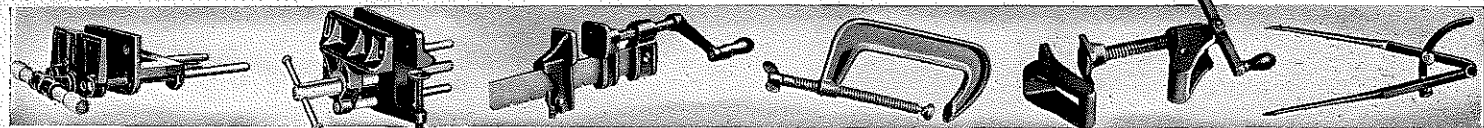
Inexpensive Chisel Set for the home work shop. Correctly tempered crucible steel blades; 3 inches long. Parkerized finish to prevent rust. Polished beveled edges. Leather tipped hardwood handles. Sizes ¼, ½, ¾ and 1 inch. Ship. wt. 2 lbs.  
84 WM 824—Set of 4. . . . .\$1.79



**Copper Plated Steel Bench Oilers**

General utility Oil-ers for workshop, farm or home. Double seamed spring steel bottom—reinforced spouts.

84 WM 7644—½ Pint. 3-inch straight spout. Ship. wt. 7 oz. 8c  
84 WM 7645—½ Pint. 5-inch straight spout. Ship. wt. 8 oz. 14c  
84 WM 7646—1 Pint. 9-in. bent spout. Ship. wt. 10 oz. . . . .22c



**Our Finest Woodworkers' Vise**  
Jaws open and close very quickly. Cast iron construction with cold rolled steel screw and guides. Jaws 7 in. wide, open 8½ in. Black lacquered finish. Ship. wt. 18 lbs.  
484 WM 6831. . . . .\$4.45

**Woodworkers' Vise**  
Instant locking. Fastens to anything ¼ to 2 in. thick. Steel rods. Malleable iron jaws 1½ by 3½ in., open to 3¾ in. Durable green finish. Ship. wt. 6 lbs.  
484 WM 6833. . . . .\$1.75

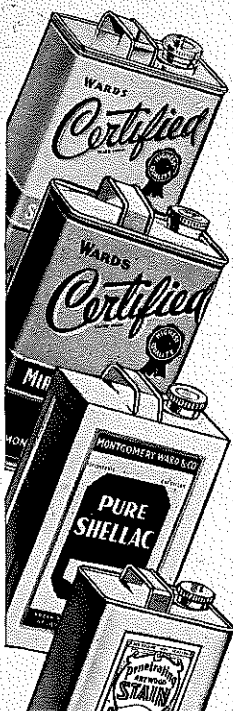
**Steel Bar Clamps**  
A quick action Clamp of simple and powerful design. Flat steel bar 1½ by ¼ in. notched to vary width opening. Ship. wts. 11 and 17 lbs.  
484 WM 6910—State length. Length. . . . .3 ft. 4 ft. Each. . . . .\$1.65 \$1.95 Pair. . . . .3.10 3.65

**Malleable Iron Clamps**  
Swivel head. Cold rolled steel screw with accurately cut threads. Ship. wts. 2 lbs. 4 oz., 3, 5 and 7 lbs.  
84 WM 6900—State size. Opens in. 4 6 8 10 Depth in. 2 2½ 3½ 4 Each. . . . .30c 58c 75c \$1.10 Pair. . . . .58c 98c \$1.40 2.10

**Cabinet Clamp**  
Powerful, quick-action clamp of heavy cast iron. Simple design. Fits wood bar 1½ by 2½ in., any length.  
Sliding head 1¾ in. square. Steel screw with deep cut threads. Ship. wt. 4 lbs. 4 oz.  
84 WM 6905. . . . .80c

**Wing Dividers**  
Polished forged steel with carefully tempered points. Thumb screw and nut adjustment for greater accuracy.  
84 WM 2284—State size. Size in. . . . .6 8 10 Ship. wt. . . . .3 oz. 1 lb. 1 lb. Each. . . . .39c 59c 79c

**Wards Certified First Quality Varnish and Enamel**



**Wards Super Spar VARNISH**  
\$1.00 qt.  
"No better general purpose varnish made"—that's what laboratory tests of 19 leading brands of Spar Varnish show. Use anywhere, inside or out. Dries in 4 to 6 hours to a beautiful smooth gloss that resists the hardest wear. One quart covers 100-150 sq. ft. 1 coat.  
75 WM 7100—1 pt. Ship. wt. 1 lb. 8 oz. . . . .55c  
575 WM 7101—1 qt. Ship. wt. 2 lbs. 12 oz. . . . .\$1.00

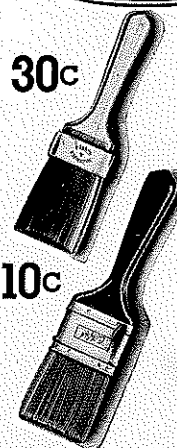
**Wards Miro-lite FURNITURE VARNISH**  
72c qt.  
A splendid, clear Varnish for every interior use. Excellent for new or old furniture, woodwork and trim. Convenient to use because it dries to a smooth brilliant gloss in 4 to 6 hours and dust-free in 1 hour. Stays bright for years. Will not crack or blister. One quart covers 100 to 150 sq. ft., one coat.  
75 WM 9010—1 pt. Ship. wt. 1 lb. 8 oz. . . . .42c  
575 WM 9011—1 qt. Ship. wt. 2 lbs. 12 oz. . . . .72c

**Wards Pure SHELLAC**  
49c qt.  
Four pounds of the finest gum shellac dissolved in one gallon of alcohol. Recommended as a first or sealer coat before varnishing new porous woods. Dries quickly, leaving a smooth, gloss finish. One quart covers about 100 sq. ft. of surface. Ship. wts. 1 lb. 8 oz. and 2 lbs. 12 oz. Thin only with denatured alcohol.  
75 WM 8676—1 pt. White. . . . .32c Orange. . . . .30c  
575 WM 8677—1 qt. White. . . . .54c Orange. . . . .49c

**Wards PENETRATING STAIN**  
53c qt.  
Brings out all the rich color and natural beauty of wood. Resists fading action of light. One quart stains about 100 sq. ft. Use only for new woods. Choice of 5 colors:  
Light Oak Mahogany Dark Oak Walnut Golden Oak  
State article number and color.  
75 WM 8131—1 Pint. Ship. wt. 1 lb. 8 oz. . . . .32c  
575 WM 8132—1 Quart. Ship. wt. 2 lbs. 12 oz. . . . .53c



**Wards Dry Fast ENAMEL**  
Finest quality, high gloss Enamel. Permanent colors. Exceptional wear-resistance. Spreads easily and smoothly. Dries in 4 to 6 hours. One quart covers 100-125 sq. ft. 1 coat. Choice of 14 brilliant colors:  
700—White 726—Apple Green  
702—Black 708—French Gray  
704—Ivory 714—Jade Green  
705—Cream 716—Golden Oak  
724—Orchid 715—Chocolate Brown  
728—Orange 732—Medium Green  
712—Spanish Blue 710—Turquoise Blue  
State article number and color numbers.  
75 WM 8080—½ pt. Ship. wt. 1 lb. 4 oz. . . . .27c  
75 WM 8081—1 pt. Ship. wt. 2 lbs. 4 oz. . . . .45c  
575 WM 8082—1 qt. Ship. wt. 4 lbs. . . . .79c



**Varnish Brush**  
Carefully selected pure Chinese bristles vulcanized in rubber. For varnish, enamel or lacquer. Ship. wts. 5 oz. and 6 oz.  
75 WM 211—1½ in. wide, 2½ in. bristles. . . . .30c  
75 WM 212—2½ in. wide, 2½ in. bristles. . . . .40c

**Varnish Brush**  
Low priced! For varnish or enamel. Pure Chinese bristles. Ship. wts. 4 oz., 4 oz., and 5 oz.  
75 WM 671—1 in. wide, 2¼ in. bristles. . . . .10c  
75 WM 672—1½ in. wide, 2½ in. bristles. . . . .15c  
75 WM 673—2 in. wide, 2½ in. bristles. . . . .19c

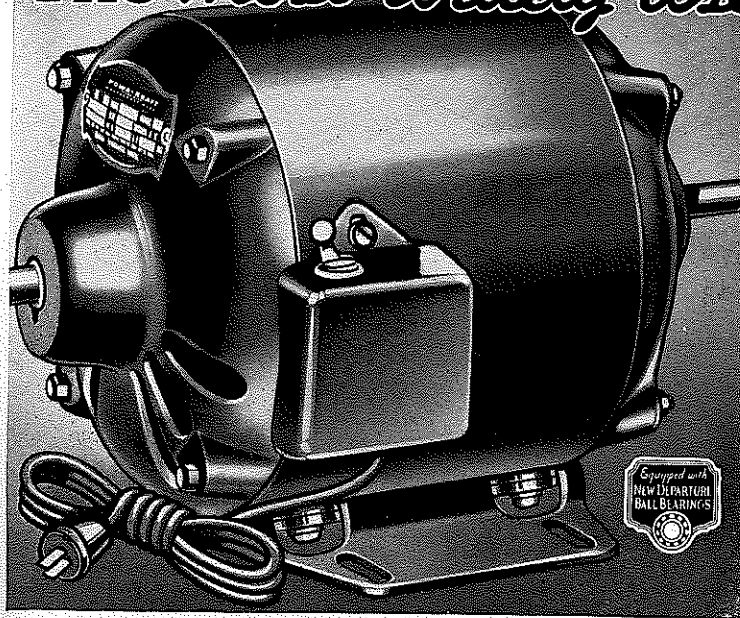
**Patching Wood**  
Wood in convenient paste form for filling cracks and holes. Hardens quickly. When dry can be sanded like wood.  
75 WM 8296—3 oz. tube. Ship. wt. 8 oz. . . . .22c  
75 WM 8297—½ lb. Ship. wt. 1 lb. . . . .39c

**Liquid Glue**  
Finest liquid glue, 1¼ oz. size in tube, other sizes in cans.  
75 WM 8588—1¼ oz. Ship. wt. 4 oz. 12c  
75 WM 8589—4 oz. Ship. wt. 11 oz. 25c  
75 WM 8590—½ pt. Ship. wt. 1 lb. 4 oz. 39c

**Casein Glue**  
A new strong, tough waterproof glue for making and repairing cabinets, furniture, musical instruments, radios, trunks, bags, etc. Easy to mix in cold water.  
75 WM 1400—1½ oz. Ship. wt. 4 oz. 9c  
75 WM 1401—4 oz. Ship. wt. 8 oz. . . . .23c

# The Most Widely Used Motors in America

**NOW SOLD BY WARDS  
TO SAVE YOU UP TO 1/3**



**\$9.75 1/3 H.P. Heavy Duty Workshop Motor**

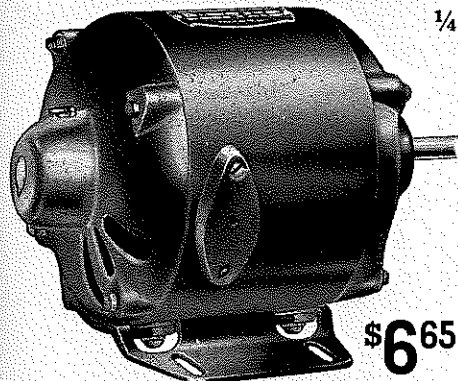
- Full 1/3 H.P. with plenty of overload capacity.
- New Departure ball bearings sealed in grease—no oiling or care needed—less power to operate.
- High carbon steel double shaft, 1/2-in. diameter at pulley but larger through motor for quiet operation.
- Each motor dynamically and statically balanced, extra quiet and smooth.
- Sturdy ON-OFF switch built for years of service.
- Weighs 31 lbs. net—5 lbs. heavier than most similar motors.
- Windings thoroughly impregnated—moisture-proof.
- Rustproof internal starting switch—quiet, positive, dependable.

Built to Wards rigid specifications, it has all the latest, up-to-date features that only the world's largest motor manufacturer can give it! That's why Wards POWER-KRAFT 1/3 H.P. Motor is so satisfactory for those tough jobs where ordinary motors will stall or burn out. Heavy duty split phase type, fitting it perfectly for light and heavy duty home workshop tools such as lathes, grinders, planers, drill presses and saws. Suitable also for all other machinery that requires plenty of power but does not start under load. Shaft is 1/2-in. at pulley but full 3/4-in. at the bearings and even larger through the rotor—which means real quietness and smoothness of operation. New Departure ball bearings cut power costs by reducing watts required to operate. Lifetime internal starting switch tested 1,000,000 starts and stops without a miss—positive proof of its sturdy construction. Bakelite terminal block—motor easily reversed. Double shaft, 10-ft. rubber cord and plug. For 110-120-volt, 60 cycle A.C. only. Speed 1725 R.P.M. Ship. wt. 37 lbs. 484 WM 9811—1/3 H.P. Ball Bearing Motor..... **\$9.75**

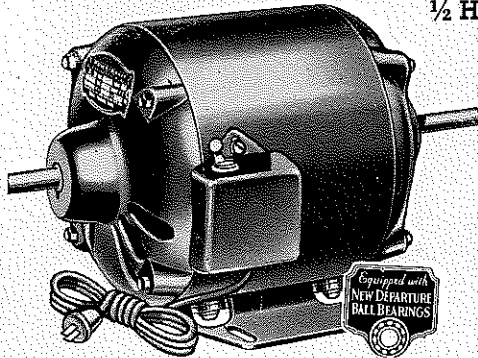
## 1/4 H.P. Split Phase Motor

This powerful smooth-running POWER-KRAFT Motor delivers full 1/4 H.P. with large overload capacity. Very low wattage consumption. Ideal for light shop tools, washing machines and similar machines not starting under load. Every motor dynamically and statically balanced. Shaft is 1/2-inch at the pulley, but larger through bearings and rotor—assuring smooth quiet operation. Windings thoroughly impregnated. Automatic end-play adjustment. 1725 R.P.M. For 110-120-volt 60 cycle A.C. only. Ship. wt. 30 lbs. 484 WM 9799—Less Cord. \$5.95 484 WM 9800—As above but with 10-ft. cord..... **\$6.65**

**1/4 H.P. Direct Current Motor**  
Like above, but equipped with famous New Departure Ball Bearings, Cord and Plug. 484 WM 9805—32-volt..... **\$14.95** 484 WM 9806—115-volt..... **\$14.95** Direct Current..... **\$14.95**



- Heavy bronze sleeve bearings diamond bored for quiet running—greater efficiency.
- Sealed lubrication—wool yarn filtered.
- Rustproof internal starting switch.
- Husky throughout—weighs over 25 lbs. net.



**1/2 H.P. High Speed Motor  
\$15.95**

A heavy duty motor, designed especially for wood-working machines that require high speeds, such as circular saws, shapers, etc. Holds speed of 3450 R.P.M. up to full 1/2 H.P. load, with liberal overload capacity. Never exceeds 3600 R.P.M. Suitable only for machines where load is applied after machine comes up to speed. New Departure ball bearings, sealed in grease, reduce power required to operate—cut power costs. Windings thoroughly impregnated. Easily reversed. Complete with sturdy ON-OFF switch, 10 ft. rubber covered cord and plug. For 110-120-volt, 60-Cycle A.C. only. Ship. wt. 40 lbs. 484 WM 9812..... **\$15.95**

- Delivers full 1/2 H.P. at 3450 R.P.M.
- New Departure ball bearings for smooth, quiet operation—low wattage consumption.
- High carbon steel double shaft, 1/2-in. at pulley—full 3/4-in. at bearings and through motor.

## Repulsion-Induction Motors Speed Up Production

- Tremendous overload capacity—develop 3 times rated horsepower for short periods. That's why these motors speed up production on wood-working machinery and all types of industrial equipment.
- Will not rise over 40 degrees Centigrade under full rated load.
- Heavy duty bronze sleeve bearings—diamond bored for precision fit with shaft—which means smoother, quieter operation.
- Sealed lubrication—enough oil in wells to last over a year.

Heavy duty motors for any heavy duty job! Four brushes permit motor to start on lower voltage. High carbon steel shaft is thicker at the bearing than at the pulley. This means smoother, quieter running—greater efficiency. Automatic end-play take-up. 1/4 and 1/2 H.P. sizes are extra quiet, brush-lifting type—suitable for refrigerators as well as general purpose. Low starting current—connect direct to line. For speedy production work we recommend the use of a motor one size larger than is recommended for home workshops. Full load speed 1725 R.P.M. For Estimated Freight Rates, see Page 2.

**1/4 Horsepower  
\$12.90**

### SINGLE PHASE MOTORS

184 WM 9821—Interchangeable for 110 or 220-volt, 60-cycle A.C. First three sizes available. All Sizes Shipped from Stock. State H.P. wanted.

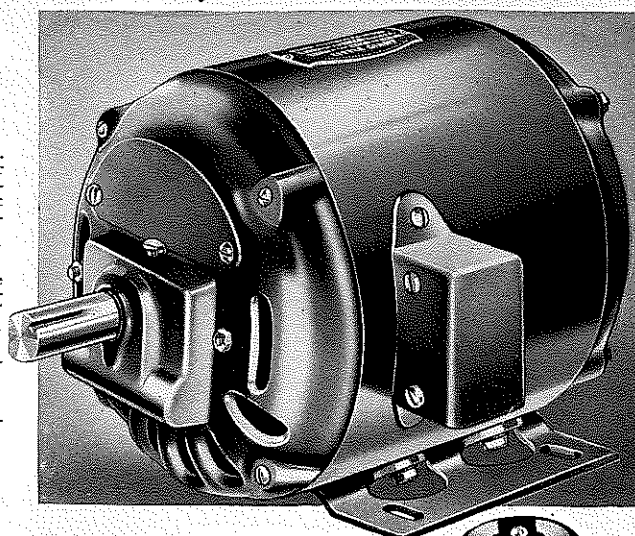
Horse Power	Diam. Shaft	Ship. Wt.	Price
1/4	3/8 in.	39 lbs.	\$12.90
1/2	1/2 in.	50 lbs.	17.50
3/4	5/8 in.	57 lbs.	19.95
1	3/4 in.	90 lbs.	28.95
1 1/2	1 in.	109 lbs.	39.90
2	1 1/8 in.	120 lbs.	49.90
2 1/2	1 1/4 in.	155 lbs.	59.50
3*	1 1/2 in.	183 lbs.	79.50

### THREE PHASE MOTORS

284 WM 9823—Be sure you have 3-phase current before ordering. For 220 or 440 volt, 60-cycle A.C. State voltage. All Sizes Shipped from Factory in Dayton, Ohio, or San Francisco, Calif. State H.P. wanted.

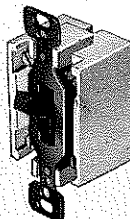
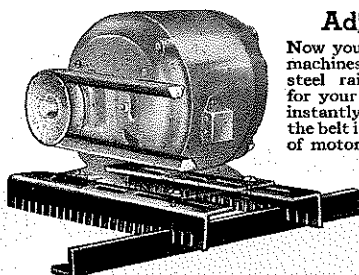
Horse Power	Diam. Shaft	Ship. Wt.	Price
1/2	3/4 in.	47 lbs.	\$31.95
3/4	3/4 in.	51 lbs.	34.95
1	3/4 in.	83 lbs.	37.95
1 1/2	1 in.	86 lbs.	42.95
2	1 in.	160 lbs.	47.50
3	1 in.	173 lbs.	53.00
5	1 1/8 in.	214 lbs.	65.50
7 1/2	1 1/4 in.	277 lbs.	89.50
10	1 1/2 in.	385 lbs.	105.00

\*See if Power Company permits use of this size Single Phase Motor on your line before ordering.



### Adjustable Motor Base

Now you can use one motor with several machines! These fine quality stamped steel rails form a sturdy, portable base for your motor so that it can be shifted instantly wherever you want it. Slack in the belt is taken up by a simple adjustment of motor base—the weight of the motor itself provides belt tension. Shipping weight per set 3 lbs. 84 WM 9831—Per set..... **89c**

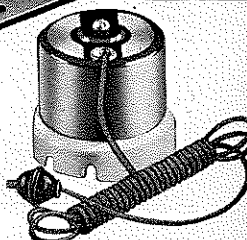


### Reversing Switch

This handy device enables you to reverse any split phase motor. Toggle flush type with bakelite handle. Designed to fit any switch box. Complete with mounting screws. Shipping weight 9 ounces. 84 WM 9374..... **\$1.49**

### Motor Switch

The handiest Motor Switch ever devised! Mount it anywhere on your bench. Stretch the 8-ft. pull-cord under the front edge of your bench, so you can control motor from any point. Switch is double pole, for long life. Ship. wt. 10 oz. 84 WM 9832—Each **\$1.49**





# Wards *Powr-Kraft* Electric Drills

JACOBS SELF-TIGHTENING CHUCKS - NEW DEPARTURE SEALED BALL BEARINGS



## High Speed Utility Model

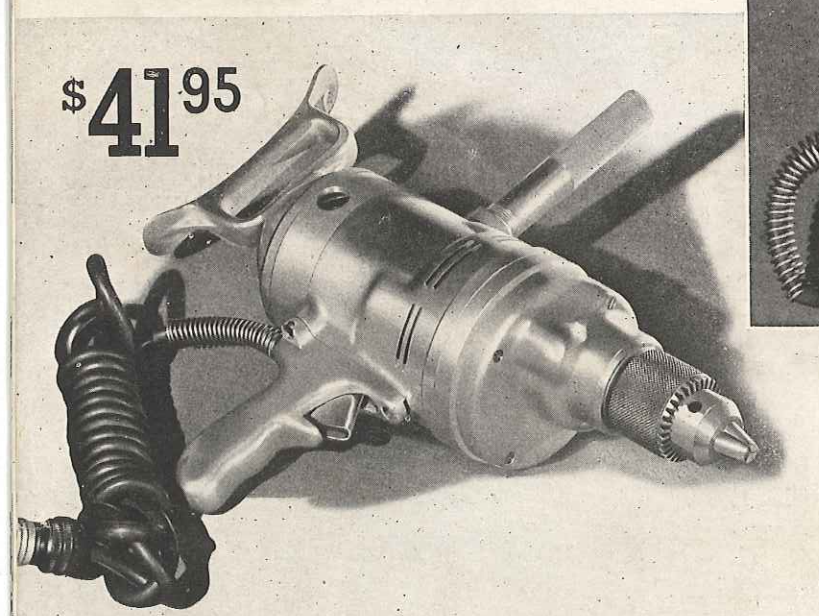
Save time, labor and money with Wards POWR-KRAFT Pencil Type Drill! Designed for close-quarter drilling, an excellent tool for pattern and cabinet work in the home or small workshop. It's so well built you'd expect to pay much more than Wards low price!

G. E. Universal motor operates on 110-120 volt A.C. or D.C. Spindle runs on New Departure radial thrust ball bearings—which means smoother running, longer service and big drill dependability. Double reduction gears—helical cut, as found only on the highest type drills—made of Chrome Vanadium steel for greater strength.

Ventilated aluminum alloy case is light weight, yet strong and durable. Jacobs self-tightening and key release chuck takes up to 1/4-inch straight shank drills. Will not stall with maximum size drill specified.

Improved pistol grip handle. Fully enclosed toggle switch in body. 10-ft. safety cord of three-conductor cable which meets Underwriters' specifications is protected at drill by coil spring.

84 WM 1018—Ship. wt. 5 lbs. .... \$15.75



## Breast Plate Model FOR HEAVY FRAME AND BODY WORK

A big, husky Drill, so powerful and so well built that it handles even the hardest jobs quickly and easily—bites through heaviest wood or toughest steel with little effort.

Extra heavy duty G. E. motor operates on 110-120 volt A.C. or D.C.—will not stall on any job when used with maximum size drills specified. Heavy New Departure ball bearings mean smoother, quieter running and longer life. Three-piece aluminum alloy motor housing—well ventilated for cooler operation. Heat treated helical cut gears of Chrome Vanadium steel for greater strength. Jacobs key chuck for straight shank drills.

Combination breast plate and removable side handle for close quarter drilling. Pistol grip and double pole switch. 10-ft. three-wire safety rubber cord with unbreakable plug—protects coil spring. 1/2-inch size shipped from Stock. 5/8, 3/4-in. sizes shipped from Factory in Chicago. Easy Payments, Page 2.

Article Number	Size, Inch	No Load	Shipping Weight	Price
584 WM 1021	1/2	560	20 lbs.	\$41.95
284 WM 1022	5/8	475	21 lbs.	48.95
284 WM 1023	3/4	425	22 lbs.	49.95



## Pistol Grip Model FOR GARAGES AND SHOPS

A heavy duty Electric Drill, an ideal tool for continuous production service in garages or shops. Nationally known G. E. motor for 110-120 volt A.C. or D.C.—will not stall when used with capacity size drills. Armature shaft and spindle are mounted on New Departure bearings—which means smoother, quieter running, longer service. Ventilated aluminum alloy case. Heat treated helical cut gears of Chrome Vanadium steel. Enclosed double pole switch. Jacobs key chuck for straight shank drills. Removable plate for easy access to brushes. 10-ft. three-wire rubber safety cord with unbreakable plug. Easy Payments Page 2.

Article Number	Size, Inch	Spindle Speed		Shipping Weight	Price
		No Load	Full Load		
584 WM 1019	1/4	1900	1300	10 lbs.	\$29.45
584 WM 1020	3/8	1300	900	11 lbs.	34.95

## Wards MASTER Quality Drill Set

Straight shank drills in a handy container that enables you to select any size you require, quickly and easily. Highest quality, for hand, breast, post or bench drills—wood or metal.

We recommend the high speed type for use with electric drills. Set consists of container and 8 drills, sizes: 1/16, 3/32, 1/8, 5/32, 3/16, 1/4 and 5/8 in. Ship. wt. per set 12 oz.

84 WM 1045—Carbon Steel..... \$1.25  
84 WM 1044—High Speed ..... 2.65

### Individual Straight Shank Drills

84 WM 1063—Finest quality high speed steel. State diameter wanted. Shipping weights 2 to 6 ounces.

Diam. In. 1/16 3/32 1/8 5/32 3/16 1/4 5/8 1/2  
Lgth. In. 2 1/2 2 3/4 3 3 1/4 3 1/2 4 5 6  
Each.... 13c 17c 21c 23c 29c 40c 75c 98c



MONTGOMERY WARD & CO.

CHICAGO

KANSAS CITY

ST. PAUL

BALTIMORE

PORTLAND

OAKLAND

FT. WORTH

DENVER

ALBANY



# HOW TO SEND MONEY

Post office money order, express money order, bank draft or personal check . . . all are safe in the mails and are acceptable to us . . . But if for any reason you can't use any of these methods, wrap the money in heavy paper and register the letter that carries it . . . Goods needed quickly may be ordered and paid for by telegraph . . . Include full address in telegram.

# MONTGOMERY WARD ORDER BLANK

BE SURE TO INCLUDE POSTAGE WITH PARCEL POST ORDERS

Name \_\_\_\_\_  
(First Name) (Middle Initial) (Last Name)

Route \_\_\_\_\_ Box \_\_\_\_\_ Street \_\_\_\_\_  
(Give Both Route and Box Number) Address \_\_\_\_\_

Post Office \_\_\_\_\_ State \_\_\_\_\_

HOW TO SHIP ☐ Parcel Post ☐ Express ☐ Freight Railroad \_\_\_\_\_

If this order is to be shipped to another person or address write directions here \_\_\_\_\_

For greater savings include several articles in your order and benefit by the lower postage rates. The rate *per pound* is less on heavier packages.

For example, to Zone 1 or 2 the postage on 1 pound is 8c, but on a package weighing 15 pounds, the postage is only 24c—less than 2c per pound.

**BE SURE TO GIVE SIZE and COLOR**

NUMBER IN CATALOG	Quantity	Name of Article Wanted	SIZE	COLOR, FINISH, ETC.	PRICE Each, Yd., Pair, Etc.	Total Amount		Shipping Weight	
						Dollars	Cents	Lbs.	Oz.
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					
			Size	Color, etc.					

## FOR ORDERING WOMEN'S, MISSES' and GIRLS' CLOTHING

NUMBER IN CATALOG	Quantity	Garment Wanted	Color	Bust Size	Hip Size	Back Length	Waist Size	Front Length Skirt	Age				

## FOR ORDERING MEN'S, YOUTHS' and BOYS' CLOTHING (Give Measurements Asked for in Description)

NUMBER IN CATALOG	Quantity	Garment Wanted	Color	Chest Size	Waist Size	Inseam Size	Arm Length	Hip Size	Height	Weight	Age				

Change of Address. Please write your old address below if you have moved since sending us your latest order.

NAME \_\_\_\_\_  
ROUTE \_\_\_\_\_ BOX \_\_\_\_\_ STREET ADDRESS \_\_\_\_\_

POST OFFICE \_\_\_\_\_ STATE \_\_\_\_\_

## HOW MUCH POSTAGE TO SEND

Total the weights and figure the postage at the rate for your zone. (See parcel post rates in Catalog.) Be sure to send enough for postage. We refund amount not actually used.

AMOUNT FOR GOODS

AMOUNT FOR POSTAGE

AMOUNT ENCLOSED FOR BALANCE DUE WARDS (if any) FROM PREVIOUS ORDER

TOTAL AMOUNT ENCLOSED

Lbs. Oz.

Total Lbs.



## Date \_\_\_\_\_ 193\_\_\_\_\_

**If customer is married and order totals more than \$100, both husband and wife must sign; otherwise one signature only is required.**